Inventor See

14/05/2005

Ward 10/621,983

=> d ibib abs hitstr 123 1-17

L23 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2004:546489 HCAPLUS

DOCUMENT NUMBER:

141:106474

TITLE:

Preparation of MEK inhibiting oxa- and

thiadiazol-2-ylphenylamines

INVENTOR(S):

Biwersi, Cathlin Marie; Warmus, Joseph Scott; Zhang, Lu Yan; Barrett, Stephen Douglas; Kaufman, Michael

David; Plummer, Mark Stephen; Reed, Jessica

Elizabeth

CODEN: PIXXD2

PATENT ASSIGNEE(S):

Warner-Lambert Company Llc, USA

SOURCE:

PCT Int. Appl., 130 pp.

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | | | | | KIND | | DATE | | APPLICATION NO. | | | | | DATE | | | | | |
|------------------------|---------------|-----|-----|-----|-------------|-------------|------|-----|-----------------|-----------------|------|------|-----|------------|------------|-----|-----|----|--|
| | | | | | | | | | | | | | | | | | | | |
| WC | WO 2004056789 | | | | Al | A1 20040708 | | | I | MO 2 | 003- | IB57 | 87 | 20031208 | | | | | |
| | W : | ΑE, | AG, | AL, | AM, | AT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, | | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | GE, | | |
| | | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | KΡ, | KR, | ΚZ, | LC, | LK, | | |
| | | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | | |
| | | OM, | PH, | PL, | PT, | RO, | RU, | SC, | SĎ, | SE, | SG, | SK, | SL, | ТJ, | TM, | TN, | TR, | | |
| | | TT, | TZ, | UA, | UG, | US, | UΖ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | | |
| | RW: | BW, | GH, | GM, | KΕ, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | | |
| | | BY, | KG, | ΚZ, | MD, | RU, | TJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | | |
| | | - | - | - | GB, | | | | | | | | | | | | | | |
| | | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | TG | |
| US 2005004186 | | | | | A1 20050106 | | | | US 2003-725206 | | | | | 20031201 | | | | | |
| PRIORITY APPLN. INFO.: | | | | | | | | Ţ | US 2002-435155P | | | | | P 20021220 | | | | | |
| | | | | | | | | | | US 2003-509701P | | | | | P 20031008 | | | | |
| | | \ | | | | | | | | | | | | | | | | | |

OTHER SOURCE(S):

MARPAT 141:106474

GΙ

Title compds. I [X = Nh, O, S; R1 = (un)substituted alkyl, alkenyl, C.tplbond.CH, alkoxy, acyl, CONH2, CO2H, alkylthio; R2 = F, CH2F, CHF2, AB CF3; R3 = (un)substituted alkyl, alkenyl, aryl, OH, SH; R4 = H, halogen; R5 = H, F] were prepared for use as inhibitors of MAPKIERK Kinase (MEK) enzymes in immunomodulation and in the treatment and

Ι

alleviation of inflammation, and proliferative diseases such as cancer and restenosis (no data). Thus, 2-(4-bromo-2-fluorophenylamino)-3,4-difluorobenzoic acid was converted to its hydrazide and cyclized with BrCN to give I [X = 0, R1 = Br, R2, R5 = F, R3 = NH2, R4 = H].

IT 534-03-2, 2-Amino-1,3-propanediol 61278-21-5,

(S)-(-)-3-Amino-1,2-propanediol 66211-46-9, (2R)-3-Amino-1,2-

propanediol

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of MEK inhibiting oxa- and thiadiazol-2-

ylphenylamines)

RN 534-03-2 HCAPLUS

CN 1,3-Propanediol, 2-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 61278-21-5 HCAPLUS

CN 1,2-Propanediol, 3-amino-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 66211-46-9 HCAPLUS

CN 1,2-Propanediol, 3-amino-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2004:80385 HCAPLUS

DOCUMENT NUMBER:

140:146153

TITLE:

Preparation of pyrimidopyrimidinones as kinase

inhibitors

INVENTOR(S):

Chivikas, Connolly Cleo J.; Deur, Christopher

James; Hamby, James Marino; Hoyer, Denton Wade; Limberakis, Chris;

Reed, Jessica Elizabeth; Schroeder, Mel

Conrad; Taylor, Clarke

PATENT ASSIGNEE(S):

SOURCE:

U.S. Pat. Appl. Publ., 44 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

USA

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PATENT | KIND | | DATE | | i | APPL | I CAT | ION I | DATE | | | | | | |
|--------------|-------------------|---------|------|------|-------------|-------------|------------|----------|------------|------|----------|-----|-----|-----|-----|
| US 2004 | A1 20040129 | | | 1 | US 2 | 003- | 6219 | 20030717 | | | | | | | |
| CA 2493 | CA 2493633 | | | | | AA 20040205 | | | 003- | 2493 | 20030721 | | | | |
| WO 2004 | WO 2004011465 | | | | A1 20040205 | | | WO 2 | 003- | IB33 | 20030721 | | | | |
| W: | AE, A | AG, AL, | AM, | AT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, |
| | co, c | CR, CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, |
| | GM, H | R, HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | ΚP, | KR, | KZ, | LC, | LK, | LR, |
| | LS, I | LT, LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | OM, |
| | PG, E | PH, PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | ТJ, | TM, | TN, |
| | TR, T | TT, TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | zw | | | |
| RW: | GH, C | GM, KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, |
| | KG, F | KZ, MD, | RU, | ТJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, |
| | FI, F | FR, GB, | GR, | HU, | ΙE, | IT, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR, |
| | BF, E | BJ, CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | TG |
| PRIORITY API | | | 1 | US 2 | 002- | 3986 | P 20020725 | | | | | | | | |
| | | | | | | WO 2 | 003- | IB33 | W 20030721 | | | | | | |
| OTHER SOURCE | MARPAT 140:146153 | | | | | | | | | | | | | | |

GΙ

This invention provides phenyl-substituted pyrimidopyrimidines, dihydropyrimidopyrimidines, pyridopyrimidines, naphthyridines, and pyridopyrazines of the general formula I [A = O, NH2, mono(or di)alkylamino, NHCONHR12 (wherein R12 = alkyl, alkylenecycloalkyl); B, C, D = CH, N (with the proviso that C and D are not both N); R1 = alkyl

II

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(optionally substituted by CO2H), (un) substituted Ph, CH2Ph, piperidinyl,
     etc.; R2 = H, C1, F; R3 = H, C1, F (at least one of R2 or R3 = F); R4 = H,
     OH, OMe, OEt (if R4 = H, R2 and R3 is not H); R5 = OMe, OEt; R6 = H,
     alkyl-NH2, O-alkyl-NH2, etc.] that inhibit cyclin-dependent
    kinase and tyrosine kinase enzymes, methods and
     intermediates for their synthesis, as well as pharmaceutical compns. and
     methods for their use in treating, inhibiting or preventing
    maladies associated with cell proliferative disorders, including
     angiogenesis, atherosclerosis, restenosis, and cancer (no biol. data
    given). Synthesis of 35 title compds. I is described. E.g., a multi-step
     synthesis of II was given.
IT
     62031-54-3, Fibroblast growth factor 62229-50-9,
     Epidermal growth factor 141349-86-2, Cdk2 kinase
     143375-65-9, Cdc2 kinase 144697-17-6, c-Src
    kinase 147014-97-9, Cdk4 kinase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (preparation of pyrimidopyrimidinones as kinase inhibitors
     62031-54-3 HCAPLUS
RN
    Fibroblast growth factor (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
     62229-50-9 HCAPLUS
    Epidermal growth factor (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     141349-86-2 HCAPLUS
RN
     Kinase (phosphorylating), gene cdk2 protein (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     143375-65-9 HCAPLUS
RN
     Kinase (phosphorylating), gene cdc2 protein (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    144697-17-6 HCAPLUS
CN
    Kinase (phosphorylating), gene c-src protein (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
    147014-97-9 HCAPLUS
CN
    Kinase (phosphorylating), protein p33CDK4 (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    651734-15-5P 651734-16-6P 651734-35-9P
     651734-43-9P
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (preparation of pyrimidopyrimidinones as kinase inhibitors
RN
     651734-15-5 HCAPLUS
    Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[4-
CN
     (diethylamino) butyl] amino] -3-(2,6-difluoro-3,5-dimethoxyphenyl) -3,4-
    dihydro- (9CI) (CA INDEX NAME)
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$$\operatorname{Et}_{2}\operatorname{N-}\left(\operatorname{CH}_{2}\right)_{4}-\operatorname{NH} \operatorname{N} \operatorname{N} \operatorname{O}_{F} \operatorname{OMe}$$

RN 651734-16-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[[(4S,5S)-5-(hydroxymethyl)-2-phenyl-1,3-dioxolan-4-yl]methyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-35-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, ethyl ester (9CI) (CA INDEX NAME)

Ext. 22524

RN 651734-43-9 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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IT
     651734-14-4P 651734-17-7P 651734-18-8P
     651734-19-9P 651734-20-2P 651734-21-3P
     651734-22-4P 651734-23-5P 651734-24-6P
     651734-25-7P 651734-26-8P 651734-27-9P
     651734-28-0P 651734-29-1P 651734-30-4P
     651734-31-5P 651734-32-6P 651734-33-7P
     651734-34-8P 651734-36-0P 651734-38-2P
     651734-39-3P 651734-40-6P 651734-41-7P
     651734-42-8P 651734-45-1P 651734-46-2P
     651734-47-3P 651734-48-4P 651734-49-5P
     651734-50-8P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of pyrimidopyrimidinones as kinase inhibitors
```

RN 651734-14-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[4-(diethylamino)butyl]amino]-3-(2,6-difluoro-3-hydroxy-5-methoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-17-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[(2S,3S)-2,3,4-trihydroxybutyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-18-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 651734-19-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-(9CI) (CA INDEX NAME)

RN 651734-20-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(3-amino-2-hydroxypropyl)amino]-1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-21-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-(2-hydroxyethoxy)ethyl]amino]- (9CI)

(CA INDEX NAME)

$$\label{eq:ho-ch2-ch2-ch2-nh} \text{HO-CH}_2\text{-CH}_2\text{-CH}_2\text{-NH} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{OMe} \\ \text{OMe}$$

RN 651734-22-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopropyl-7-[[4-(diethylamino)butyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\mathsf{Et_2N-} \; (\mathsf{CH_2}) \; \mathsf{_4-NH} \qquad \mathsf{_N} \qquad \mathsf{_N} \qquad \mathsf{_N} \qquad \mathsf{_OMe} \; .$$

RN 651734-23-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-(diethylamino)butyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et}_{2}\text{N-} \text{(CH}_{2})_{4}\text{-NH} & \text{N} & \text{O} & \text{F} \\ & & & & \text{N} & \text{O} & \text{F} \\ & & & & & \text{OMe} \end{array}$$

RN 651734-24-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]- (9CI) (CA INDEX NAME)

Ext. 22524

RN 651734-25-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 651734-26-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2R,3R)-2,3-dihydroxybutyl]amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-27-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2R)-2,3-dihydroxypropyl]amino]-3,4-dihydro-(9CI)(CA INDEX NAME)

Absolute stereochemistry.

RN 651734-28-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-amino-2,3-dihydroxybutyl)amino]1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro- (9CI) (CA INDEX NAME)

OH OH
$$H_2N-CH_2-CH-CH-CH_2-NH$$
 N OMe OMe

RN 651734-29-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[(2S,3S)-2,3,4-trihydroxybutyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-30-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[2-(2-hydroxyethoxy)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 651734-31-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[(2S,3S)-4-amino-2,3-dihydroxybutyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-32-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[[3-[bis(2-

hydroxyethyl)amino]propyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-33-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2S)-2,3-dihydroxypropyl]amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-34-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-7[[(2R,3R)-2,3-dihydroxybutyl]amino]-1-ethyl-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-36-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

RN 651734-38-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-amino-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-1-(4-piperidinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 651734-37-1 CMF C19 H22 F2 N6 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 651734-39-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ \text{HO-CH}_2 & & & & \\ \text{HO-CH}_2 - \text{CH-NH} & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

RN 651734-40-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-ethyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[(4-hydroxybutyl)amino]- (9CI) (CA INDEX NAME)

RN 651734-41-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[(2S)-2,3-dihydroxypropyl]amino]-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-42-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 651734-45-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-1-(4-piperidinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 651734-44-0 CMF C20 H24 F2 N6 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 651734-46-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-7[[(2R)-2,3-dihydroxypropyl]amino]-1-ethyl-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-47-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[4-(diethylamino)butyl]amino]-3-(3-ethoxy-2,6-difluorophenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-48-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[(2R)-2,3-dihydroxypropyl]amino]-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} \text{OH} & \text{H} & \text{N} & \text{N} & \text{O} \\ \hline \text{N} & \text{N} & \text{N} & \text{O} & \text{F} \\ \hline \text{OMe} & & \text{OMe} \\ \end{array}$$

RN 651734-49-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-ethyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-(2-hydroxyethoxy)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 651734-50-8 HCAPLUS
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IT 75-65-0, t-Butanol, reactions 100-46-9, Benzylamine, reactions 367-27-1, 2,4-Difluorophenol 534-03-2, Serinol 616-29-5, 1,3-Diamino-2-hydroxypropane 765-30-0 , Cyclopropylamine 770-31-0 929-06-6, 2-(2-Aminoethoxy) ethanol 2150-37-0, Methyl 3,5-dimethoxy benzoate 4985-85-7, N-(3-Aminopropyl)diethanolamine 5909-24-0, 4-Chloro-2-methylsulfanylpyrimidine-5-carboxylic acid ethyl ester 13325-10-5, 4-Aminobutan-1-ol 17159-80-7, Ethyl-4-hydroxycyclohexanecarboxylate 27431-62-5, 4-Diethylaminobutylamine 27489-62-9, trans-4-Aminocyclohexanol 32798-38-2, 1,4-Diaminobutane-2,3-diol 36629-42-2, Methyl pentafluorobenzoate 61278-21-5 66211-46-9 104769-25-7, (2S,3S)-1,4-Diaminobutane-2,3-diol 109384-19-2, tert-Butyl-4-hydroxy-1-piperidinecarboxylate 155322-89-7, (4S,5R)-2,2,5-Trimethyl[1,3]dioxolane-4-carbonyl chloride 168113-19-7 185040-35-1 211245-64-6 651734-99-5, 1-Cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7methylsulfinyl-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 651735-01-2 651735-16-9 651735-17-0 651735-19-2 RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of pyrimidopyrimidinones as kinase inhibitors

) RN 75-65-0 HCAPLUS

CN 2-Propanol, 2-methyl- (9CI) (CA INDEX NAME)

RN 100-46-9 HCAPLUS

CN Benzenemethanamine (9CI) (CA INDEX NAME)

 H_2N-CH_2-Ph

RN 367-27-1 HCAPLUS

CN Phenol, 2,4-difluoro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 534-03-2 HCAPLUS

CN 1,3-Propanediol, 2-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 616-29-5 HCAPLUS

CN 2-Propanol, 1,3-diamino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 765-30-0 HCAPLUS

CN Cyclopropanamine (9CI) • (CA INDEX NAME)



RN 770-31-0 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-amino-2-(methylthio)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 929-06-6 HCAPLUS

CN Ethanol, 2-(2-aminoethoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)

H2N-CH2-CH2-О-CH2-СH2-ОН

RN 2150-37-0 HCAPLUS

CN Benzoic acid, 3,5-dimethoxy-, methyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 4985-85-7 HCAPLUS

CN Ethanol, 2,2'-[(3-aminopropyl)imino]bis- (9CI) (CA INDEX NAME)

$$CH_2-CH_2-OH$$

 $|$
 $HO-CH_2-CH_2-N-(CH_2)_3-NH_2$

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 13325-10-5 HCAPLUS

CN 1-Butanol, 4-amino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-OH$

RN 17159-80-7 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-hydroxy-, ethyl ester (6CI; 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 27431-62-5 HCAPLUS

CN 1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-NEt_2$

RN 27489-62-9 HCAPLUS

CN Cyclohexanol, 4-amino-, trans- (8CI, 9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 32798-38-2 HCAPLUS

CN 2,3-Butanediol, 1,4-diamino- (7CI, 8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{OH} & \text{OH} \\ & | & | \\ \text{H}_2\text{N---} \text{CH}_2 - \text{CH----} \text{CH}_2 - \text{NH}_2 \end{array}$$

RN 36629-42-2 HCAPLUS

CN Benzoic acid, pentafluoro-, methyl ester (9CI) (CA INDEX NAME)

$$F = C - OMe$$

$$F = F$$

RN 61278-21-5 HCAPLUS

CN 1,2-Propanediol, 3-amino-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 66211-46-9 HCAPLUS

CN 1,2-Propanediol, 3-amino-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 104769-25-7 HCAPLUS

CN 2,3-Butanediol, 1,4-diamino-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 109384-19-2 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-hydroxy-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 155322-89-7 HCAPLUS

CN 1,3-Dioxolane-4-carbonyl chloride, 2,2,5-trimethyl-, (4S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 168113-19-7 HCAPLUS

CN 1,2,3-Butanetriol, 4-amino-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 185040-35-1 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(ethylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 211245-64-6 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(cyclopentylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-99-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylsulfinyl)- (9CI) (CA INDEX NAME)

RN 651735-01-2 HCAPLUS

CN 1,3-Dioxolane-4-methanol, 5-(aminomethyl)-2-phenyl-, (4S,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651735-16-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylsulfinyl)- (9CI) (CA INDEX NAME)

RN 651735-17-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-ethyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylsulfinyl)- (9CI) (CA INDEX NAME)

RN 651735-19-2 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-cyclopentyl-3-(3-ethoxy-2,6-difluorophenyl)-3,4-dihydro-7-(methylsulfinyl)- (9CI) (CA INDEX NAME)

ΙT 348-20-9P, 1-Ethoxy-2,4-difluorobenzene 122590-82-3P, Methyl 4-(benzylamino)-2,3,5,6-tetrafluorobenzoate 211247-46-0P 651734-51-9P, Methyl 4-(benzylamino)-3,5-difluoro-2,6dimethoxybenzoate 651734-52-0P, 4-(Benzylamino)-3,5-difluoro-2,6dimethoxybenzoic Acid 651734-53-1P, N-Benzyl-2,6-difluoro-3,5dimethoxyaniline 651734-54-2P, 2,6-Difluoro-3,5-dimethoxyaniline 651734-55-3P, 2,6-Difluoro-3,5-dimethoxybenzoic acid Methyl Ester 651734-56-4P, 2,6-Difluoro-3,5-dimethoxybenzoic acid 651734-57-5P, (2,6-Difluoro-3,5-dimethoxyphenyl)carbamic acid tert-Butyl Ester 651734-58-6P, 2-Fluoro-3,5-dimethoxybenzoic Acid Methyl Ester 651734-59-7P, 2-Fluoro-3,5-dimethoxybenzoic acid 651734-60-0P, (2-Fluoro-3,5-dimethoxyphenyl)carbamic Acid tert-Butyl Ester 651734-61-1P, 2-Fluoro-3,5-dimethoxyphenylamine 651734-62-2P, 3-Ethoxy-2,6-difluorobenzoic Acid 651734-63-3P, (3-Ethoxy-2,6-difluorophenyl)carbamic Acid tert-Butyl Ester 651734-64-4P, 3-Ethoxy-2,6-difluorophenylamine 651734-65-5P, 4-Cyclopropylamino-2-methylsulfanylpyrimidine-5-Carboxylic Acid Ethyl Ester 651734-66-6P 651734-67-7P 651734-68-8P 651734-69-9P 651734-70-2P 651734-71-3P 651734-72-4P 651734-73-5P 651734-74-6P 651734-75-7P 651734-76-8P, 1-Cyclopropyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-methylsulfanyl-3,4dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 651734-77-9P, 1-Cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-methylsulfanyl-3,4dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 651734-79-1P 651734-81-5P 651734-83-7P 651734-86-0P 651734-88-2P, (4S,5R)-2,2,5-Trimethyl-[1,3]dioxolane-4-carboxylic Acid Benzylamide 651734-90-6P, (2S, 3R)-N-Benzyl-2,3-

RN 122590-82-3 HCAPLUS

CN Benzoic acid, 2,3,5,6-tetrafluoro-4-[(phenylmethyl)amino]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ \text{Ph-} & \text{CH}_2 - \text{NH} & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

RN 211247-46-0 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(cyclopropylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-51-9 HCAPLUS

CN Benzoic acid, 3,5-difluoro-2,6-dimethoxy-4-[(phenylmethyl)amino]-, methyl ester (9CI) (CA INDEX NAME)

RN 651734-52-0 HCAPLUS

CN Benzoic acid, 3,5-difluoro-2,6-dimethoxy-4-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{OMe} \\ \hline \text{F} & \text{CO}_2\text{H} \\ \hline \text{Ph-CH}_2\text{-NH} & \text{OMe} \\ \hline \end{array}$$

RN 651734-53-1 HCAPLUS

CN Benzenemethanamine, N-(2,6-difluoro-3,5-dimethoxyphenyl)- (9CI) (CA INDEX NAME)

RN 651734-54-2 HCAPLUS

CN Benzenamine, 2,6-difluoro-3,5-dimethoxy- (9CI) (CA INDEX NAME)

MeO OMe
$$_{\mathrm{F}}$$
 $_{\mathrm{NH_2}}$

RN 651734-55-3 HCAPLUS

CN Benzoic acid, 2,6-difluoro-3,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)

RN 651734-56-4 HCAPLUS

CN Benzoic acid, 2,6-difluoro-3,5-dimethoxy- (9CI) (CA INDEX NAME)

RN 651734-57-5 HCAPLUS

CN Carbamic acid, (2,6-difluoro-3,5-dimethoxyphenyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 651734-58-6 HCAPLUS

CN Benzoic acid, 2-fluoro-3,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)

RN 651734-59-7 HCAPLUS

CN Benzoic acid, 2-fluoro-3,5-dimethoxy- (9CI) (CA INDEX NAME)

RN 651734-60-0 HCAPLUS

CN Carbamic acid, (2-fluoro-3,5-dimethoxyphenyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 651734-61-1 HCAPLUS

CN Benzenamine, 2-fluoro-3,5-dimethoxy- (9CI) (CA INDEX NAME)

RN 651734-62-2 HCAPLUS

CN Benzoic acid, 3-ethoxy-2,6-difluoro- (9CI) (CA INDEX NAME)

RN 651734-63-3 HCAPLUS

CN Carbamic acid, (3-ethoxy-2,6-difluorophenyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 651734-64-4 HCAPLUS

CN Benzenamine, 3-ethoxy-2,6-difluoro- (9CI) (CA INDEX NAME)

RN 651734-65-5 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-(cyclopropylamino)-2-(methylthio)-, ethyl ester (9CI) (CA INDEX NAME)

RN 651734-66-6 HCAPLUS

CN 5-Pyrimidinemethanol, 4-(cyclopropylamino)-2-(methylamino)- (9CI) (CA INDEX NAME)

RN 651734-67-7 HCAPLUS

CN 4-Pyrimidinamine, 5-[[(2,6-difluoro-3,5-dimethoxyphenyl)imino]methyl]-N-ethyl-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-68-8 HCAPLUS

CN 4-Pyrimidinamine, N-cyclopropyl-5-[[(2,6-difluoro-3,5-dimethoxyphenyl)imino]methyl]-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-69-9 HCAPLUS

CN 4-Pyrimidinamine, N-cyclopentyl-5-[[(2,6-difluoro-3,5-dimethoxyphenyl)imino]methyl]-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-70-2 HCAPLUS

CN 4-Pyrimidinamine, N-cyclopentyl-5-[[(3-ethoxy-2,6-difluorophenyl)imino]methyl]-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-71-3 HCAPLUS

CN 5-Pyrimidinemethanamine, N-(2,6-difluoro-3,5-dimethoxyphenyl)-4-(ethylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-72-4 HCAPLUS

CN 5-Pyrimidinemethanamine, 4-(cyclopropylamino)-N-(2,6-difluoro-3,5-dimethoxyphenyl)-2-(methylthio)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \\ \hline & \text{NH} \\ \hline & \text{NH} \\ \hline & \text{CH}_2 \\ \hline \end{array} \quad \text{N}$$

RN 651734-73-5 HCAPLUS

CN 5-Pyrimidinemethanamine, 4-(cyclopentylamino)-N-(2,6-difluoro-3,5-dimethoxyphenyl)-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-74-6 HCAPLUS

CN 5-Pyrimidinemethanamine, 4-(cyclopentylamino)-N-(3-ethoxy-2,6-difluorophenyl)-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-75-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-76-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopropyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-77-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-79-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(3-ethoxy-2,6-difluorophenyl)-3,4-dihydro-7-(methylthio)- (9CI) (CA INDEX NAME)

RN 651734-81-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-(methylsulfinyl)- (9CI) (CA INDEX NAME)

RN 651734-83-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopropyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylsulfinyl)- (9CI) (CA INDEX NAME)

RN 651734-86-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3-ethoxy-2,6-difluorophenyl)-1-(1-ethylpropyl)-3,4-dihydro-7-(methylsulfinyl)- (9CI) (CA INDEX NAME)

RN 651734-88-2 HCAPLUS

CN 1,3-Dioxolane-4-carboxamide, 2,2,5-trimethyl-N-(phenylmethyl)-, (4S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-90-6 HCAPLUS

CN Butanamide, 2,3-dihydroxy-N-(phenylmethyl)-, (2S,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-92-8 HCAPLUS

CN 2,3-Butanediol, 1-[(phenylmethyl)amino]-, (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-94-0 HCAPLUS

CN 2,3-Butanediol, 1-amino-, (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651735-06-7 HCAPLUS

CN 5-Pyrimidinemethanamine, 4-amino-N-(2,6-difluoro-3,5-dimethoxyphenyl)-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651735-08-9 HCAPLUS

CN 4-Pyrimidinamine, 5-[[(2,6-difluoro-3,5-dimethoxyphenyl)imino]methyl]-2-(methylthio)- (9CI) (CA INDEX NAME)

RN 651735-10-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylthio)- (9CI) (CA INDEX NAME)

RN 651735-13-6 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylthio)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 651735-14-7 HCAPLUS

Cyclohexanecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-CN dihydro-7-(methylsulfinyl)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, ethyl ester (9CI) (CA INDEX NAME)

651735-15-8 HCAPLUS RN

1-Piperidinecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-CN dihydro-7-(methylsulfinyl)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 651735-18-1 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[7-amino-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 651735-20-5 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylthio)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L23 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2002:123003 HCAPLUS

DOCUMENT NUMBER:

136:183833

TITLE:

Preparation of 2-(4-pyridyl)amino-6-dialkoxyphenylpyrido[2,3-d]pyrimidin-7-ones as novel antiangiogenic agents useful for the treatment of diseases associated

with aberrant blood vessel proliferation.

INVENTOR(S):

Hamby, James Marino; Klutchko, Sylvester;

Kramer, James Bernard

PATENT ASSIGNEE(S):

Warner-Lambert Company, USA

SOURCE:

PCT Int. Appl., 51 pp.

CODEN: PIXXD2

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| W : | CO, CR, C GM, HR, I LS, LT, I RO, RU, S | CU, CZ, DI HU, ID, II LU, LV, MA SD, SE, SC | E, DK, DM, L, IN, IS, A, MD, MG, G, SI, SK, | BA, BB, BG, BR, BY, DZ, EC, EE, ES, FI, JP, KE, KG, KP, KR, MK, MN, MW, MX, MZ, SL, TJ, TM, TR, TT, BY, KG, KZ, MD, RU, | GB, GD, GE, GH, KZ, LC, LK, LR, NO, NZ, PL, PT, TZ, UA, UG, US, | | | |
| | GH, GM, IDE, DK, IBJ, CF, G | KE, LS, M ES, FI, FI CG, CI, CI | W, MZ, SD, R, GB, GR, M, GA, GN, | SL, SZ, TZ, UG, ZW, IE, IT, LU, MC, NL, GQ, GW, ML, MR, NE, | AT, BE, CH, CY, PT, SE, TR, BF, SN, TD, TG | | | |
| | | | | CA 2001-2417942 | | | | |
| EP 130 | 7450 | A2 | 20030507 | AU 2001-77032 EP 2001-954811 | 20010720 | | | |
| R: | | | | GB, GR, IT, LI, LU, CY, AL, TR | NL, SE, MC, PT, | | | |
| BR 200 | 3220345 | A A1 | 20050209 | JP 2002-518213 BR 2001-12857 US 2003-343847 US 2000-223083P | 20010720 20030204 | | | |

WO 2001-US22881 W 20010720

OTHER SOURCE(S):

MARPAT 136:183833

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention discloses the preparation and the use of title compds. I, wherein: R1, R2, R5, R6 = H, halogen, alkyl, alkoxy, thio, thioalkyl, hydroxy, alkanoyl, nitrile, nitro, alkanoyloxy, CF3, alkyl ester, NH2 or derivs., aminoalkoxy, etc.; R3, R4 = alkyl, or haloalkyl; R7 = H, alkyl, alkenyl, alkynyl, or cycloalkyl; including their pharmaceutically acceptable salts and compns. as antiangiogenic agents. Compds. I, are useful for treating diseases, resulting from uncontrolled cellular proliferation such as cancer, atherosclerosis, rheumatoid arthritis, and psoriasis. The invention compds. exhibited greater selectivity for inhibiting VEGF and FGF, without inhibiting the Src family c-Src and Lck kinases. Claims include 12 specific compds. and the syntheses of 5 especially preferred compds. are described. example, condensation of 3,5-dimethoxyphenylacetonitrile with aldehyde II, followed by acylation of the resultant imine, hydrolysis, oxidation, and sulfoxide displacement with the lithium salt of 4-amino-2,6dimethoxypyridine, provided the most preferred compound III in 5 steps. Tyrosine kinase inhibition data (IC50 = μ M) was disclosed for compound I (R1, R5, R6 = H; R2 = 3-C1; R3, R4 = Me; and R7 = Et) against: FGFr = 0.0002, VEGF-2 = 0.003, PDGF = 5, Lck = 2.77, and c-Src = >4. Inhibition of serum-stimulated HUVEC cell proliferation data (IC50 = μM) of compound I (R1, R2, R5, R6 = H; R3, R4 = Me; and R7 = Et) against HUVEC = 0.009, A90 = 2.92, and C6 = >25 uM was also provided. Metabolic stability and transport studies of compound I (R1, R2, R5, R6 = H; R3, R4 = Me; and R7 = Et) with human and mice liver S9 prepns. indicated half-lives > 200 min. Also investigated, the in vivo anticancer efficacy of compound I (R1, R2, R5, R6 = H; R3, R4 = Me; and R7 = Et) against mammary adenocarcinoma M16/C: at 5 mg/kg dosage yielded a median mass of treated tumors/median mass of control tumor ratio of 39% with a net gain in subject body weight

TТ 185040-35-1P, 4-Ethylamino-2-methylsulfanylpyrimidine-5carboxaldehyde

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of pyrido[2,3-d]pyrimidine-7-ones as antiangiogenic agents)

RN 185040-35-1 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(ethylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

ΙT 5909-24-0, Ethyl 4-chloro-2-(methylthio)-5-pyrimidinecarboxylate RL: RCT (Reactant); RACT (Reactant or reagent)

(precursor; preparation of pyrido[2,3-d]pyrimidine-7-ones as antiangiogenic agents)

5909-24-0 HCAPLUS RN

5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, CN 7CI, 8CI, 9CI) (CA INDEX NAME)

ΙT 144697-17-6, C-Src kinase

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(preparation of pyrido[2,3-d]pyrimidine-7-ones as antiangiogenic agents)

RN 144697-17-6 HCAPLUS

Kinase (phosphorylating), gene c-src protein (9CI) (CA INDEX NAME) CN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L23 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:47493 HCAPLUS

132:175450 DOCUMENT NUMBER:

TITLE: Anti-angiogenic activity of selected receptor tyrosine

kinase inhibitors, PD166285 and

PD173074: Implications for combination treatment with

photodynamic therapy

Dimitroff, Charles J.; Klohs, Wayne; Sharma, Amarnath; Pera, Paula; Driscoll, Denise; Veith, Jean; AUTHOR (S):

Steinkampf, Randall; Schroeder, Mel;

Klutchko, Sylvester; Sumlin, Adam; Henderson, Barbara;

Dougherty, Thomas J.; Bernacki, Ralph J.

CORPORATE SOURCE: Harvard Skin Disease Research Center, Harvard Medical

School, Boston, MA, USA

SOURCE: Investigational New Drugs (1999), 17(2), 121-135

CODEN: INNDDK; ISSN: 0167-6997

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal LANGUAGE: English

Angiogenesis, the formation of new blood vessels from an existing vasculature, is requisite for tumor growth. It entails intercellular coordination of endothelial and tumor cells through angiogenic growth factor signaling. Interruption of these events has implications in the suppression of tumor growth. PD166285, a broad-spectrum receptor tyrosine kinase (RTK) inhibitor, and PD173074, a selective FGFR1TK inhibitor, were evaluated for their anti-angiogenic activity and anti-tumor efficacy in combination with photodynamic therapy (PDT). To evaluate the anti-angiogenic and anti-tumor activities of these compds., RTK assays, in vitro tumor cell growth and microcapillary formation assays, in vivo murine angiogenesis and anti-tumor efficacy studies utilizing RTK inhibitors in combination with photodynamic therapy were performed. PD166285 inhibited PDGFR- β -, EGFR- and FGFR1TKs, and c-src TK by 50% (IC50) at concns. between 7-85 nM. PD173074 displayed selective inhibitory activity towards FGFR1TK at 26 nM. PD173074 demonstrated (> 100 fold) selective growth inhibitory action towards human umbilical vein

endothelial cells compared with a panel of tumor cell lines. Both PD166285 and PD173074 (at 10 nM) inhibited the formation of microcapillaries on Matrigel-coated plastic. In vivo anti-angiogenesis studies in mice revealed that oral administration (p.o.) of either PD166285 (1-25 mg/kg) or PD173074 (25-100 mg/kg) generated dose dependent inhibition of angiogenesis. Against a murine mammary 16c tumor, prolonged tumor regressions were achieved with daily p.o. doses of PD166285 (5-10 mg/kg) or PD173074 (30-60 mg/kg) following PDT compared with PDT alone. Many long-term survivors were also noted in combination treatment groups. PD166285 and PD173074 displayed potent anti-angiogenic and anti-tumor activity and prolonged the duration of anti-tumor response to PDT. Interference in membrane signal transduction by inhibitors of specific RTKs (e.g. FGFR1TK) should result in new chemotherapeutic agents having the ability to limit tumor angiogenesis and regrowth following cytoreductive treatments such as PDT.

IT 144697-17-6, c-Src tyrosine kinase

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(anti-angiogenic activity of selected receptor tyrosine kinase inhibitors, in combination with photodynamic therapy)

RN 144697-17-6 HCAPLUS

CN Kinase (phosphorylating), gene c-src protein (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT:

61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1999:764041 HCAPLUS

DOCUMENT NUMBER:

132:22971

TITLE:

Preparation of oxopyrido- and -pyrimidopyrimidines as

cellular proliferation inhibitors

INVENTOR(S):

Dobrusin, Ellen Myra; Hamby, James Marino; Kramer, James Bernard; Schroeder, Mel Conrad

; Showalter, Howard Daniel Hollis; Toogood, Peter;

Trumpp-Kallmeyer, Susanne A.

PATENT ASSIGNEE(S):

SOURCE:

Warner-Lambert Co.; USA

PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE | | | |
|-----------------|-----------------|-------------------------|-------------|--|--|--|
| | | WO 1999-US10187 | 19990510 | | | |
| | A3 20000203 | | | | | |
| W: AE, AL, AU, | BA, BB, BG, BR, | CA, CN, CU, CZ, EE, GD, | GE, HR, HU, | | | |
| ID, IL, IS, | JP, KP, KR, LC, | LK, LR, LT, LV, MG, MK, | MN, MX, NO, | | | |
| NZ, PL, RO, | SG, SI, SK, SL, | TR, TT, UA, US, UZ, VN, | YU, ZA, AM, | | | |
| AZ, BY, KG, | KZ, MD, RU, TJ, | TM | | | | |
| RW: GH, GM, KE, | LS, MW, SD, SL, | SZ, UG, ZW, AT, BE, CH, | CY, DE, DK, | | | |
| ES, FI, FR, | GB, GR, IE, IT, | LU, MC, NL, PT, SE, BF, | BJ, CF, CG, | | | |
| CI, CM, GA, | GN, GW, ML, MR, | NE, SN, TD, TG | | | | |
| CA 2329703 | AA 19991202 | CA 1999-2329703 | 19990510 | | | |
| AU 9940734 | A1 19991213 | AU 1999-40734 | 19990510 | | | |
| AU 763839 | B2 20030731 | | | | | |
| BR 9911590 | A 20010213 | BR 1999-11590 | 19990510 | | | |

| EP | 1080 | 092 | | | A2 | : | 2001 | 0307 | | ΕP | 1999 | -9241 | .65 | | | 19990 | 510 |
|------------|---------|-------|------|-----|---------|-----|-------|------|-----|----|-------|-------|--------------|-----|----|-------|-----|
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GF | R, IT | , LI, | LU, | NL, | SE | , MC, | PT, |
| | | ΙE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | |
| TR | 2000 | 03429 | 9 | | T2 | : | 2001 | 0723 | | TR | 2000 | -2000 | 0342 | 9 | | 19990 | 510 |
| JP | 2002 | 51632 | 27 | | T2 | - 2 | 2002 | 0604 | | JP | 2000 | -5508 | 149 | | | 19990 | 510 |
| EE | 2000 | 00706 | 5 | | Α | : | 2002 | 0617 | | EE | 2000 | -706 | | | | 19990 | 510 |
| NZ | 5082 | 68 | | | Α | : | 2004 | 0227 | | NZ | 1999 | -5082 | 868 | | | 19990 | 510 |
| ZA | 2000 | 00653 | 36 | | Α | : | 2002 | 0211 | | ZA | 2000 | -6536 | , | | | 20001 | 110 |
| BG | 1049 | 60 | | | Α | : | 2001 | 1031 | | BG | 2000 | -1049 | 60 | | | 20001 | 117 |
| HR | 2000 | 00079 | 99 | | A1 | : | 2001 | 0630 | | HR | 2000 | -799 | | | | 20001 | 120 |
| NO | 2000 | 00592 | 28 | | Α | : | 2000 | 1123 | | NO | 2000 | -5928 | } | | | 20001 | 123 |
| HK | 1039 | 483 | | | A1 | | 2004 | 0618 | | ΗK | 2001 | -1078 | 28 | | | 20011 | 108 |
| US | 2004 | 0440 | 12 | | A1 | : | 2004 | 0304 | | US | 2003 | -6388 | 48 | | | 20030 | 811 |
| PRIORITY | APP | LN. | INFO | . : | | | | | | US | 1998 | -8670 | 18P |] | P | 19980 | 526 |
| | | | | | | | | | | US | 1999 | -1261 | .58P |] | P | 19990 | 325 |
| | | | | | | | | | | WO | 1999 | -US10 | 187 | 1 | Ŋ | 19990 | 510 |
| | | | | | | | | | | US | 2000 | -6237 | 37 | I | 43 | 20000 | 907 |
| OMITTED GO | TTD 017 | / C \ | | | 143 D D | | 1 2 2 | 2222 | | | | | | | | | |

OTHER SOURCE(S):

MARPAT 132:22971

GI

AB Title compds. [I; G = NR2 or CHR2; R = NHR1 or SO0-2R1; R1,R2 = H, (cyclo)alkyl, (un)substituted PH, -pyridyl, etc.; R3 = groups cited for R1, OH, alkoxy(carbonyl), etc.; R4 = H; R3R4 = bond; R8,R9 = H, halo, NH2, alkoxycarbonyl, etc.; X = 0, S, (alkyl)imino, etc.; Z = N or CH] were prepared as cyclin-dependant and tyrosine kinase inhibitors. Thus, 5-aminomethyl-4-cyclopentylamino-2methylthiopyrimidine (preparation given) was cyclocondensed with 1,1'-carbonyldiimidazole and the oxidized product aminated by 4-(MeO)C6H4NH2 to give I [G = cyclopentylimino, R = 4-(MeO)C6H4NH, R3 = R4 = R8 = R9 = H, X = O]. Data for biol. activity of I were given. 770-31-0 5909-24-0 27431-62-5, 4-Diethylaminobutylamine 185040-35-1 RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of bicyclic pyrimidines and bicyclic 3,4-dihydropyrimidines as inhibitors of cellular proliferation) RN 770-31-0 HCAPLUS CN 5-Pyrimidinecarboxaldehyde, 4-amino-2-(methylthio)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 27431-62-5 HCAPLUS

CN 1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-NEt_2$

RN 185040-35-1 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(ethylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

L23 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1999:561587 HCAPLUS

DOCUMENT NUMBER:

131:184962

TITLE:

Preparation of oxidoamino-substituted

pyrido[2,3-d]pyrimidines as protein tyrosine

kinase inhibitors

INVENTOR (S):

Doherty, Annette Marian; Hallak, Hussein Osman;

Hamby, James Marino

PATENT ASSIGNEE(S):

Warner-Lambert Company, USA

SOURCE:

U.S., 25 pp.

DOCUMENT TYPE:

CODEN: USXXAM

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

LI ACC. NOM. COON

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|------------------|----------|
| | | | | |
| US 5945422 | Α | 19990831 | US 1998-15739 | 19980129 |
| PRIORITY APPLN. INFO.: | | | US 1997-38822P P | 19970205 |

OTHER SOURCE(S):

MARPAT 131:184962

GI

$$\begin{array}{c|c}
N & & \\
N & & \\
N & & \\
R^2
\end{array}$$

Title compds. [I;R = ONR5R6Z1Z2NH; R1 = (un) substituted Ph or heteroaryl; R2 = H, (cyclo)alkyl, phenyl(alkyl), heteroaryl, etc.; R5,R6 = H, alkyl, phenyl(alkyl), etc.; R5R6 = atoms to complete a ring; X = O, S, (acyl)imino; Z1,Z2 = bond, alkylene(oxy), -(thio), arylene] were prepared Thus, I (R1 = C6H3Cl2-2,6, R2 = Me, X = O)(II; R = SMe) was aminated by Et2NCH2CH2OC6H4(NH2)-4 and the product oxidized to give II [R = 4-(ONEt2CH2CH2O)C6H4NH]. Data for biol.activity of I were given.

IT 100-46-9, Benzylamine, reactions 5909-24-0, Ethyl 4-chloro-2-methylthiopyrimidine-5-carboxylate 27431-62-5,

4-Diethylaminobutylamine

Ι

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of oxidoamino-substituted pyrido[2,3-d]pyrimidines as protein tyrosine kinase inhibitors)

RN 100-46-9 HCAPLUS

CN Benzenemethanamine (9CI) (CA INDEX NAME)

 H_2N-CH_2-Ph

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 27431-62-5 HCAPLUS

CN 1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-NEt_2$

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:139846 HCAPLUS

DOCUMENT NUMBER: 130:196643

TITLE: Preparation of naphthyridinones as protein tyrosine

kinase and cyclin dependant kinase

inhibitors

 Dobrusin, Ellen Myra; Hamby, James Marino;

Showalter, Howard Daniel Hollis; Thompson, Andrew

Mark; Winters, Roy Thomas; Wu, Zhipei

PATENT ASSIGNEE(S): Warner-Lambert Company, USA SOURCE: PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA' | KIND DATE | | | | APPLICATION NO. | | | | | | | DATE | | | | | | |
|----------|--------------|------|-----|-----|-----------------|-----|------|-------|-----|----|------|-------|------|-----|-----|-----|------|-----|
| | 9909 | | | | | | | | | | | | | | | | | |
| | W: | AL, | AU, | BA, | BB, | BG, | BR, | CA, | CN, | Ct | J, C | ZZ, | EE, | GE, | HR, | HU, | ID, | IL, |
| | | IS, | JP, | KR, | LC, | LK, | LR, | LT, | LV, | MO | 3, M | ΙK, | MN, | MX, | NO, | NZ, | PL, | RO, |
| | | SG, | SI, | SK, | SL, | TR, | TT, | UA, | US, | UZ | Z, V | Ν, | YU, | AM, | ΑZ, | BY, | KG, | KZ, |
| | | MD, | RU, | ТJ, | TM | | | | | | | | | | | | | |
| | RW: | GH, | GM, | KΕ, | LS, | MW, | SD, | SZ, | UG, | ZW | V, A | T, | BE, | CH, | CY, | DE, | DK, | ES, |
| | | FI, | FR, | GB, | GR, | ΙE, | IT, | LU, | MC, | NI | , P | T, | SE, | BF, | ВJ, | CF, | CG, | CI, |
| | | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN, | TI |), T | Ğ | | | | | | |
| CA | 2291 2291 | 222 | | | AΑ | | 1999 | 0225 | | CA | 199 | 8-2 | 2291 | 222 | | 1 | 9980 | 813 |
| CA | 2291 | 222 | | | С | | 2004 | 0330 | | | | | | | | | | |
| AU | 9888 | 289 | | | A1 | | 1999 | 0308 | | ΑU | 199 | 8-8 | 828 | 9 | | 1 | 9980 | 813 |
| AU | 7429 | 99 | | | B2 | | 2002 | 0117 | | | | | | | | | | |
| EP | 1003 | 745 | | | A1 | | 2000 | 0531 | | ΕP | 199 | 8 - 8 | 399 | 41 | | 1 | 9980 | 813 |
| EP | 1003 | 745 | | | В1 | | 2004 | 1229 | | | | | | | | | | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GF | ≀, I | Τ, | LI, | LU, | NL, | SE, | MC, | PT. |
| | | ΙE, | SI, | LT, | LV, | FI, | RO | - | | | | • | - | | | - | - | |
| BR | 9811 2001 | 956 | · | • | Α | • | 2000 | 0815 | | BR | 199 | 8-1 | 1956 | 6 | | 1 | 9980 | 813 |
| JP | 2001 | 5150 | 78 | | T2 | | 2001 | 0918 | | JP | 200 | 0-5 | 097 | 10 | | 1 | 9980 | 813 |
| NZ | 5027 | 04 | | | Α | | 2002 | 0628 | | NZ | 199 | 8 - 5 | 027 | 04 | | 1 | 9980 | 813 |
| AT | 5027 2860 | 53 | | | E | | 2005 | 0115 | | ΑT | 199 | 8 - 9 | 3994 | 41 | | 1 | 9980 | 813 |
| ZA | 9807 | 491 | | | Α | | 1999 | 0421 | | ZA | 199 | 8 - 7 | 7491 | | | 1 | 9980 | 819 |
| MX | 9911 | 792 | | | Α | | 2000 | 0630 | | MX | 199 | 9-1 | 1792 | 2. | | 1 | 9991 | 215 |
| US | 6150 | 359 | | | Α | | 2000 | 1121 | | US | 200 | 0 – 4 | 635 | 53 | | 2 | 0000 | 126 |
| PRIORITY | | | | | | | | | | | | | | | | | 9970 | |
| | | | | | | | | | | | | | | | | | 9980 | |
| OTHER SO | OURCE | (S): | | | MARI | PAT | 130: | 19664 | | | | | | | | | | |

GΙ

AB Title compds. [I; R1 = halo or (un) substituted amino; R2 = (bi) (cyclo) alkyl; R5 = H, halo, (hetero) aryl, etc.; dashed line = optional bond] were prepared Thus, 4,6-diamino-3-pyridinecarboxaldehyde (preparation given) was cyclocondensed with 2,6-Cl2C6H3CH2CN and the major product treated with NaNO2/HBF4 to give, after N-methylation, major product I (R2 = Me, R5 = C6H3Cl2-2,6) (II; R1 = F) which was aminated to give II (R1 =

e.g., NHMe). Data for biol. activity of I were given.

IT 27431-62-5, 4-Diethylaminobutylamine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of naphthyridinones as protein tyrosine kinase and cyclin dependant kinase inhibitors)

RN 27431-62-5 HCAPLUS

CN 1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-NEt_2$

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1998:724585 HCAPLUS

DOCUMENT NUMBER:

130:90084

TITLE:

Crystal structure of an angiogenesis inhibitor

bound to the FGF receptor tyrosine kinase

domain

AUTHOR (S):

Mohammadi, Moosa; Froum, Scott; Hamby, James

M.; Schroeder, Mel C.; Panek, Robert

L.; Lu, Gina H.; Eliseenkova, Anna V.; Green, David;

Schlessinger, Joseph; Hubbard, Stevan R.

CORPORATE SOURCE:

Departments of Pharmacology and Medicine, Kaplan

Comprehensive Cancer Center, and Skirball Institute of

Biomolecular Medicine, New York University Medical

Center, New York, NY, 10016, USA

SOURCE: EMBO Journal (1998), 17(20), 5896-5904

CODEN: EMJODG; ISSN: 0261-4189

PUBLISHER:

Oxford University Press

DOCUMENT TYPE: LANGUAGE: Journal English

AB Angiogenesis, the sprouting of new blood vessels from pre-existing ones, is an essential physiol. process in development, yet also plays a major role in the progression of human diseases such as diabetic retinopathy, atherosclerosis and cancer. The effects of the most potent angiogenic factors, vascular endothelial growth factor (VEGF), angiopoietin and fibroblast growth factor (FGF) are mediated through cell surface receptors that possess intrinsic protein tyrosine kinase activity. In this report, the authors describe a synthetic compound of the pyrido[2,3-d]pyrimidine class, designated PD 173074, that selectively inhibits the tyrosine kinase activities of the FGF and VEGF receptors. The authors show that systemic administration of PD 173074 in mice can effectively block angiogenesis induced by either FGF or VEGF with no apparent toxicity. To elucidate the determinants of selectivity, the authors have determined the crystal structure of PD 173074 in complex with the tyrosine kinase domain of FGF receptor 1 at 2.5 Å resolution A high degree of surface complementarity between PD 173074 and the hydrophobic, ATP-binding pocket of FGF receptor 1 underlies the potency and selectivity of this inhibitor. PD 173074 is thus a promising candidate for a therapeutic angiogenesis inhibitor to be used in the treatment of cancer and other diseases whose progression is dependent upon new blood vessel formation.

IT 62031-54-3, Fibroblast growth factor
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(crystal structure of an angiogenesis inhibitor bound to the

FGF receptor tyrosine kinase domain)

RN 62031-54-3 HCAPLUS

Fibroblast growth factor (9CI) (CA INDEX NAME) CN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT:

THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS 46

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1998:600713 HCAPLUS

DOCUMENT NUMBER:

129:316187

TITLE:

Synthesis and Tyrosine Kinase

Inhibitory Activity of a Series of

2-Amino-8H-pyrido[2,3-d]pyrimidines: Identification of

Potent, Selective Platelet-Derived Growth Factor

Receptor Tyrosine Kinase Inhibitors

AUTHOR (S):

Boschelli, Diane H.; Wu, Zhipei; Klutchko, Sylvester

R.; Showalter, H. D. Hollis; Hamby, James M. ; Lu, Gina H.; Major, Terry C.; Dahring, Tawny K.; Batley, Brian; Panek, Robert L.; Keiser, Joan; Hartl, Brian G.; Kraker, Alan J.; Klohs, Wayne D.; Roberts,

Bill J.; Patmore, Sandra; Elliott, William L.; Steinkampf, Randy; Bradford, Laura A.; Hallak,

Hussein; Doherty, Annette M.

CORPORATE SOURCE:

Department of Medicinal Chemistry, Parke-Davis Pharmaceutical Research Division of Warner-Lambert

Company, Ann Arbor, MI, 48105, USA

SOURCE:

Journal of Medicinal Chemistry (1998), 41(22),

4365-4377

CODEN: JMCMAR; ISSN: 0022-2623 American Chemical Society

PUBLISHER: DOCUMENT TYPE:

Journal LANGUAGE: English

Screening of a compound library led to the identification of 2-amino-6-(2,6-dichlorophenyl)-8-methylpyrido[2,3-d]pyrimidine (I) as a inhibitor of the platelet-derived growth factor receptor (PDGFr), fibroblast growth factor receptor (FGFr), and c-src tyrosine kinases (TKs). Replacement of the primary amino group at C-2 of I with a 4-(N,N-diethylaminoethoxy) phenylamino group gave a compound, which had greatly increased activity against all three TKs. In the present work, variation of the aromatic group at C-6 and of the alkyl group at N-8 of the pyrido[2,3-d]pyrimidine core provided several analogs that retained potency, including derivs. that were biased toward inhibition of the TK activity of PDGFr. Analogs of the 4-[(N,Ndiethylaminoethoxy)phenylamino]-substituted derivative with a 3-thiophene or an unsubstituted Ph group at C-6 were the most potent inhibitors One compound, 2-[4-[2-(diethylamino)ethoxy]phenylamino]-8-ethyl-6-phenyl-8H-pyrido[2,3-d]pyrimidin-7-one had IC50 values of 31, 88, and 31 nM against PDGFr, FGFr, and c-src TK activity, resp.,. It was active in a variety of PDGF-dependent cellular assay and blocked the in vivo growth of three PDGF-dependent tumor lines.

IT 5909-24-0 185040-35-1

RL: RCT (Reactant); RACT (Reactant or reagent)

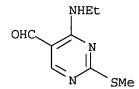
(preparation and tyrosine kinase inhibitory activity of aminopyrido[2,3-d]pyrimidines)

5909-24-0 HCAPLUS RN

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

185040-35-1 HCAPLUS RN

5-Pyrimidinecarboxaldehyde, 4-(ethylamino)-2-(methylthio)- (9CI) (CA CN INDEX NAME)



REFERENCE COUNT:

56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1998:496546 HCAPLUS

DOCUMENT NUMBER:

129:211390

TITLE:

2-Substituted Aminopyrido[2,3-d]pyrimidin-7(8H)-ones. Structure-Activity Relationships Against Selected

Tyrosine Kinases and in Vitro and in Vivo

Anticancer Activity

AUTHOR (S):

Klutchko, Sylvester R.; Hamby, James M.;

Boschelli, Diane H.; Wu, Zhipei; Kraker, Alan J.; Amar, Aneesa M.; Hartl, Brian G.; Shen, Cynthia; Klohs, Wayne D.; Steinkampf, Randall W.; Driscoll, Denise L.; Nelson, James M.; Elliott, William L.; Roberts, Billy J.; Stoner, Chad L.; Vincent, Patrick W.; Dykes, Donald J.; Panek, Robert L.; Lu, Gina H.; Major, Terry C.; Dahring, Tawny K.; Hallak, Hussein; Bradford, Laura A.; Showalter, H. D. Hollis; Doherty,

Annette M.

CORPORATE SOURCE:

Departments of Chemistry Cancer Research Vascular and

Cardiac Diseases and Pharmacokinetics and Drug Metabolism Parke-Davis Pharmaceutical Research Division, Warner-Lambert Company, Ann Arbor, MI,

48105, USA

SOURCE:

Journal of Medicinal Chemistry (1998), 41(17),

3276-3292

CODEN: JMCMAR; ISSN: 0022-2623 American Chemical Society

PUBLISHER:

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AΒ While engaged in therapeutic intervention against a number of proliferative diseases, we have discovered the 2-aminopyrido[2,3-d]pyrimidin-7(8H)-ones as a novel class of potent, broadly active tyrosine kinase (TK) inhibitors. An efficient route was developed that enabled the synthesis of a wide variety of analogs with substitution on several positions of the template. Compds. of this series were competitive with

ATP and displayed submicromolar to low nanomolar potency against a panel of TKs, including receptor (platelet-derived growth factor, PDGFr; fibroblast growth factor, FGFr; epidermal growth factor, EGFr) and nonreceptor (c-Src) classes. One of the more thoroughly evaluated members was 63 with IC50 values of 0.079 µM (PDGFr), 0.043 µM (bFGFr), 0.044 μM (EGFr), and 0.009 μM (c-Src). In cellular studies, 63 inhibited PDGF-mediated receptor autophosphorylation in a number of cell lines at IC50 values of 0.026-0.002 μM and proliferation of two PDGF-dependent lines at $0.3 \mu M$. It also caused inhibition of soft agar colony formation in three cell lines that overexpress the c-Src TK, with IC50 values of 0.33-1.8 μM. In in vivo studies against a panel of seven xenograft tumor models with known and/or inferred dependence on the EGFr, PDGFr, and c-Src TKs, compound 63 produced a tumor growth delay of 10.6 days against the relatively refractory SK-OV-3 ovarian xenograft and also displayed activity against the HT-29 tumor. In rat oral bioavailability studies, compound 63 plasma concns. declined in a biexponential manner, and systemic plasma clearance was high relative to liver blood flow. Finally, in rat metabolism studies, HPLC chromatog. identified two metabolites of 63. Because of the excellent potency of 63 against selected TKs, in vitro and in vivo studies are underway for this compound in addnl. tumor models dependent upon PDGFr, FGFr, and c-Src to assess its potential for advancement to clin. trials.

IT 144697-17-6, c-Src tyrosine kinase

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(preparation of aminopyridopyrimidinones as tyrosine kinase inhibitors and anticancer agents)

RN 144697-17-6 HCAPLUS

CN Kinase (phosphorylating), gene c-src protein (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 100-46-9, Benzylamine, reactions 5909-24-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminopyridopyrimidinones as tyrosine kinase

inhibitors and anticancer agents)

RN 100-46-9 HCAPLUS

CN Benzenemethanamine (9CI) (CA INDEX NAME)

H2N-CH2-Ph

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

IT 185040-35-1P

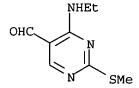
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminopyridopyrimidinones as tyrosine kinase

inhibitors and anticancer agents)

RN 185040-35-1 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(ethylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:202673 HCAPLUS

DOCUMENT NUMBER: 128:257440

TITLE: Preparation of pyrido[2,3-d]pyrimidines for

inhibiting protein tyrosine kinase
mediated cellular proliferation

INVENTOR(S):
Blankley, Clifton John; Boschelli, Diane Harris;

Doherty, Annette Marian; Hamby, James Marino

; Klutchko, Sylvester; Panek, Robert Lee

PATENT ASSIGNEE(S): Warner-Lambert Company, USA

SOURCE: U.S., 39 pp., Cont.-in-part of U.S. 5,620,981.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

.FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PA | TENT NO. | | KIN | D DATE | APPLICATION NO. | DATE |
|----|----------|--|-----|----------|---------------------|------------------|
| | | | | | | |
| US | 5733914 | | Α | 19980333 | US 1996-611279 | 19960403 |
| US | 5620981 | | Α | 19970415 | US 1995-433294 | 19950503 |
| | | | | | IL 1996-117923 | |
| CA | 2214219 | | AA | 1996110 | CA 1996-2214219 | 19960426 |
| | | | | | WO 1996-US5819 | |
| | | | | | HU, JP, KR, LT, LV, | |
| | | | | | AZ, BY, KG, KZ, MD, | |
| | | | | | FR, GB, GR, IE, IT, | |
| ΑU | | | | | AU 1996-55769 | |
| | | | | 19991209 | | 23300120 |
| | | | | | EP 1996-913175 | 19960426 |
| | | | | | GB, GR, IT, LI, LU, | |
| | | | LV, | | 05, 00, 11, 21, 20, | NE, 52, 1.C, 11, |
| CN | | | | | CN 1996-193678 | 19960426 |
| CM | 1083452 | | В | 20020424 | CN 1990 193070 | 19900420 |
| | 11504922 | | TЭ | 19990511 | JP 1996-533372 | 19960426 |
| NO | 307021 | | 7 | 20010427 | | |
| C7 | 288160 | | D. | 2001042 | CZ· 1997-3275 | 19960426 |
| | 3770 | | | | | |
| | 184093 | | | | EE 1997-274 | |
| | | | | | PL 1996-323089 | |
| | 283952 | | | | | |
| | 9603486 | | | 19961113 | | |
| NO | 9705033 | | Α | 19971031 | NO 1997-5033 | 19971031 |
| | | | | | | |

NO 310110

B1 20010521

PRIORITY APPLN. INFO.:

US 1995-433294 A2 19950503 US 1996-611279 A 19960403 WO 1996-US5819 W 19960426

OTHER SOURCE(S):

MARPAT 128:257440

GΙ

$$\begin{array}{c|c}
N & Ar \\
N & X \\
R^2 & I
\end{array}$$

The title compds. [I; X = NH, N-acyl, O, S; R1 = SOR3, SO2R3; R2, R3 = H, (CH2)nPh (where Ph = (un)substituted phenyl; n = 0-3), heteroarom., etc.; Ar = (un)substituted Ph, heteroaryl], inhibitors of protein tyrosine kinases, and thus useful in treating cellular proliferation, especially useful in treating cancer, atherosclerosis, restenosis, and psoriasis, were prepared and formulated. Thus, treatment of 2-ethoxyethanol with NaH followed by addition of 2,6-dimethylphenylacetonitrile, and 2-amino-4-methylamino-5-pyrimidinecarboxaldehyde (preparation described) afforded pyrido[2,3-d]pyrimidine I [R1 = NH2; R2 = Me; X = NH; Ar = 2,6-dimethylphenyl] which showed 42% inhibition of PDGFr-TK at 50 μM.

RN 100-46-9 HCAPLUS

CN Benzenemethanamine (9CI) (CA INDEX NAME)

 H_2N-CH_2-Ph

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 27431-62-5 HCAPLUS

CN 1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-NEt_2$

IT 185040-35-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrido[2,3-d]pyrimidines for **inhibiting** protein tyrosine **kinase** mediated cellular proliferation)

RN 185040-35-1 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(ethylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

OHC N SMe

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1998:202672 HCAPLUS

DOCUMENT NUMBER:

128:257439

TITLE:

Preparation of 6-arylpyrido[2,3-d]pyrimidines and

naphthyridines for inhibiting protein tyrosine kinase mediated cellular

proliferation

INVENTOR (S):

Blankley, Clifton John; Doherty, Annette Marian;

Hamby, James Marino; Panek, Robert Lee; Schroeder, Mel Conrad; Showalter, Howard

Daniel Hollis; Connolly, Cleo

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S., 36 pp., Cont.-in-part of U.S. Ser. No. 339,051,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIN | D DATE | APPLICATION NO. | DATE |
|---|-------------------------------|--|--|---|
| CA 2199964 WO 9615128 W: AM, LV, | AA A2 AU, BG, BY, MD, MX, NO, | 19960523 19960523 CA, CN, CZ, NZ, PL, RO, | US 1995-539410 CA 1995-2199964 WO 1995-US14700 EE, FI, GE, HU, JP, RU, SG, SI, SK, TJ, | 19951113 19951113 KG, KR, KZ, LT, UA, UZ |
| AU 9641078 AU 711426 EP 790997 | A1 B2 A2 | 19960606 19991014 | GB, GR, IE, IT, LU, AU 1996-41078 EP 1995-939129 | 19951113 |
| HU 76853 | A2 A B | 19971229 19980107 20020529 | GB, GR, IE, IT, LI, HU 1997-1511 CN 1995-196230 JP 1995-516240 | 19951113 19951113 |

| CZ | 286160 | B6 | 20000112 | CZ | 1997-1390 | | 19951113 |
|---------------|-----------------|----|----------|----|--------------|----|----------|
| AT | 190978 | E | 20000415 | AΤ | 1995-939129 | | 19951113 |
| PT | 790997 | T | 20000630 | PT | 1995-939129 | | 19951113 |
| ES | 2146782 | Т3 | 20000816 | ES | 1995-939129 | | 19951113 |
| SK | 281724 | B6 | 20010710 | SK | 1997-609 | | 19951113 |
| \mathtt{PL} | 181893 | B1 | 20011031 | PL | 1995-320169 | • | 19951113 |
| MD | 1861 | F2 | 20020228 | MD | 1997-970187 | | 19951113 |
| RU | 2191188 | C2 | 20021020 | RU | 1997-110269 | | 19951113 |
| ZA | 9509675 | A | 19960529 | ZA | 1995-9675 | | 19951114 |
| IL | 115970 | A1 | 19990620 | IL | 1995-115970 | | 19951114 |
| BG | 63162 | B1 | 20010531 | ВG | 1997-101326 | | 19970313 |
| FI | 9701953 | A | 19970512 | FΙ | 1997-1953 | | 19970507 |
| NO | 9702198 | Α | 19970513 | NO | 1997-2198 | | 19970513 |
| NO | 308250 | B1 | 20000821 | | | | |
| US | 5952342 | A | 19990914 | US | 1998-40792 | | 19980318 |
| GR | 3033439 | T3 | 20000929 | GR | 2000-401126 | | 20000518 |
| PRIORITY | Y APPLN. INFO.: | | | US | 1994-339051 | B2 | 19941114 |
| | | | | US | 1995-539410 | Α | 19951106 |
| | | | | WO | 1995-US14700 | W | 19951113 |

OTHER SOURCE(S):

MARPAT 128:257439

GI

The title compds. [I; R1, R2, R4 = H, C1-8 alkyl, C2-8 alkenyl, etc.; R3 = C(0)R8, CO2R8, C(S)R8, etc.; R8 = H, C1-8 alkyl, C2-8 alkenyl, etc.; Ar = (un)substituted aromatic ot heteroarom. selected from Ph, imidazolyl, pyrrolyl, etc.], inhibitors of protein tyrosine kinase which are especially useful in treating atherosclerosis, restenosis, psoriasis, as well as bacterial infections, were prepared and formulated. Thus, reaction of 2,7-diamino-6-(2,6-dichlorophenyl)pyrido[2,3-d]pyrimidine (preparation described) with tert-Bu isocyanate in the presence of NaH in DMF afforded the urea I [R1 = R4 = H; R2 = R3 = C(0)NHtBu; Ar = 2,6-Cl2C6H3] which showed IC50 of 10.2 μ M against PDGF receptor tyrosine kinase.

IT 5909-24-0 27431-62-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 6-arylpyrido[2,3-d]pyrimidines and naphthyridines for
 inhibiting protein tyrosine kinase mediated cellular
 proliferation)

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

27431-62-5 HCAPLUS RN

1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME) CN

 $H_2N-(CH_2)_4-NEt_2$

TТ 770-31-0P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

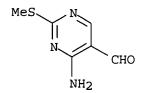
(preparation of 6-arylpyrido[2,3-d]pyrimidines and naphthyridines for

inhibiting protein tyrosine kinase mediated cellular

proliferation)

RN 770-31-0 HCAPLUS

5-Pyrimidinecarboxaldehyde, 4-amino-2-(methylthio)- (6CI, 7CI, 8CI, 9CI) CN (CA INDEX NAME)



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1997:686365 HCAPLUS

DOCUMENT NUMBER:

127:355051

TITLE:

Discovery and structure-activity studies of a novel

series of pyrido[2,3-d]pyrimidine tyrosine

kinase inhibitors

AUTHOR (S):

Connolly, Cleo J. C.; Hamby, James M.; Schroeder, Mel C.; Barvian, Mark;

Lu, Gina H.; Panek, Robert L.; Amar, Aneesa; Shen, Cindy; Kraker, Alan J.; Fry, David W.; Klohs, Wayne

CORPORATE SOURCE:

D.; Doherty, Annette M. Division of Warner-Lambert Company, Department of Chemistry, Parke-Davis Pharmaceutical Research, Ann

Arbor, MI, 48105, USA

SOURCE:

Bioorganic & Medicinal Chemistry Letters (1997),

7(18), 2415-2420

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: DOCUMENT TYPE: Elsevier Journal

LANGUAGE: OTHER SOURCE(S): English CASREACT 127:355051 AB The inhibition of tyrosine kinase-mediated signal transduction pathways represents a therapeutic approach to the intervention of proliferative diseases such as cancer, atherosclerosis, and restenosis. A novel series of pyrido[2,3-d]pyrimidine inhibitors of the PDGFr, bFGFr, and c-Src tyrosine kinases was developed from compound library screening and lead optimization. In addition, highly selective inhibitors of the FGFr tyrosine kinase were also discovered and developed from this novel series of pyrido[2,3-d]pyrimidines. The syntheses, biol. evaluation, and structure-activity relationships of this series are reported.

144697-17-6, c-Src tyrosine kinase IT

> RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(discovery and structure-activity studies of a novel series of pyrido[d]pyrimidine tyrosine kinase inhibitors)

144697-17-6 HCAPLUS ŔN

Kinase (phosphorylating), gene c-src protein (9CI) (CA INDEX NAME) CN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 24 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

1997:436125 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 127:117061

TITLE: Structure-Activity Relationships for a Novel Series of

Pyrido[2,3-d]pyrimidine Tyrosine Kinase

Inhibitors

AUTHOR (S): Hamby, James M.; Connolly, Cleo J.

C.; Schroeder, Mel C.; Winters, R.
Thomas; Showalter, H. D. Hollis; Panek, Robert L.; Major, Terry C.; Olsewski, Bronislawa; Ryan, Michael J.; Dahring, Tawny; Lu, Gina H.; Keiser, Joan; Amar,

Aneesa; Shen, Cindy; Kraker, Alan J.; Slintak,

Veronika; Nelson, James M.; Fry, David W.; Bradford,

Laura; Hallak, Hussein; Doherty, Annette M.

CORPORATE SOURCE: Parke-Davis Pharmaceutical Research, Division of

Warner Lambert Company, Ann Arbor, MI, 48105, USA

SOURCE: Journal of Medicinal Chemistry (1997), 40(15),

2296-2303

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Screening of a compound library for inhibitors of the fibroblast growth factor (FGFr) and platelet-derived growth factor (PDGFr) receptor tyrosine kinases led to the development of a novel series of ATP competitive pyrido[2,3-d]pyrimidine tyrosine kinase inhibitors. The initial lead, 1-[2-amino-6-(2,6dichlorophenyl)pyrido[2,3-d]pyrimidin-7-yl]-3-tert-butylurea (I; PD-089828), was found to be a broadly active tyrosine kinase I inhibited the PDGFr, FGFr, EGFr, and c-src inhibitor. tyrosine kinases with IC50 values of 1.11, 0.13, 0.45, and 0.22 μM, resp. Subsequent SAR studies led to the synthesis of new analogs with improved potency, solubility, and bioavailability relative to the initial lead. For example, the introduction of a [4-(diethylamino)butyl]amino side chain into the 2-position of I afforded a compound (II) with enhanced potency and bioavailability. II inhibited PDGF-stimulated vascular smooth muscle cell proliferation with an IC50 of 0.3 μM .

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Furthermore, replacement of the 6-(2,6-dichlorophenyl) moiety of I with a
     6-(3',5'-dimethoxyphenyl) functionality produced a highly selective FGFr
     tyrosine kinase inhibitor (III). III
     inhibited the FGFr tyrosine kinase with an IC50 of 0.060
     μM, whereas IC50s for the inhibition of the PDGFr, FGFr,
     EGFr, c-src, and InsR tyrosine kinases for this compound were all
     greater than 50 µM.
TT
     144697-17-6, c-Src tyrosine kinase
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (pyrido[2,3-d]pyrimidine tyrosine kinase inhibitor
        preparation and structure-activity relationship)
     144697-17-6 HCAPLUS
RN
     Kinase (phosphorylating), gene c-src protein (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     27431-62-5, 4-(Diethylaminobutylamine
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction; pyrido[2,3-d]pyrimidine tyrosine kinase
        inhibitor preparation and structure-activity relationship)
     27431-62-5 HCAPLUS
RN
     1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
CN
H_2N-(CH_2)_4-NEt_2
REFERENCE COUNT:
                         54
                               THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L23 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                         1997:407661 HCAPLUS
DOCUMENT NUMBER:
                         127:130930
TITLE:
                         Inhibition of growth factor-mediated
                         tyrosine phosphorylation in vascular smooth muscle by
                         PD 08928, a new synthetic protein tyrosine
                         kinase inhibitor
AUTHOR (S):
                         Dahring, Tawny K.; Lu, Gina H.; Hamby, James
                         M.; Batley, Brain L.; Kraker, Alan J.; Panek,
                         Robert L.
CORPORATE SOURCE:
                         Departments of Vascular and Cardiac Diseases,
                         Chemistry and Cancer Research, Division of
                         Warner-Lambert Company, Parke-Davis Pharmaceutical
                         Research, Ann Arbor, MI, 48105, USA
SOURCE:
                         Journal of Pharmacology and Experimental Therapeutics
                         (1997), 281(3), 1446-1456
                         CODEN: JPETAB; ISSN: 0022-3565
                         Williams & Wilkins
PUBLISHER:
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     PD 089828, a novel protein tyrosine kinase inhibitory
     of a new structural class, the 6-aryl-pyrido-[2,3-d]pyrimidines, was
     identified by screening a compound library with assays that measured protein
     tyrosine kinase activity. PD 089828 was found to
     inhibit human full-length fibroblast growth factor (FGF)
     receptor-1 (FGFR-1), platelet-derived growth factor (PDGF) receptor \beta
     subunit (PDGFR-\beta), Src nonreceptor tyrosine kinase (c-Src)
     and epidermal growth factor (EGF) receptor (EGFR) tyrosine kinases
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with half-maximal inhibitory potencies (IC50 values) of 0.15,

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0.18, 1.76 and 5.47 μM, resp. PD 089828 was further characterized as
an ATP competitive inhibitor of the growth factor receptor
tyrosine kinases (FGFR-1, PDGFR-\beta and EGFR) but a
noncompetitive inhibitor of c-Src tyrosine kinase with
respect to ATP. In addition, PD 089828 inhibited PDGF- and
EGF-stimulated receptor autophosphorylation in vascular smooth muscle
cells (VSMC) and basic FGF-mediated tyrosine phosphorylation in A121 cells
with IC50 values similar to the potencies observed for inhibitor of
receptor tyrosine kinase activity. The inhibition of
PDGF receptor autophosphorylation in VSMC by PD 089828 occurred rapidly,
with maximal effects reached within 5 min of drug exposure.
Inhibition after single exposure was long lasting but also rapidly
reversible, occurring within 5 min after drug removal. The PDGF-induced
association of downstream signaling proteins, including phosphoinositide-3-
kinase (PI-3K), growth factor receptor binding protein-2 (GRB2),
SH-2 domain and collagen like (Shc) and phospholipase Cy
(PLCγ), with VSMC PDGF receptors was also blocked as a result of the
inhibition of PDGF-stimulated receptor autophosphorylation by PD
089828. PD 089828 also inhibited the PDGF-induced tyrosine
phosphorylation of the 44- and 42-kDa mitogen-activated protein
kinase isoforms. Moreover, the effects of PD 089828 were
demonstrated in functional assays in which PDGF-stimulated DNA synthesis,
PDGF-directed migration and serum-stimulated growth of VSMC were all
inhibited to the same extent as PDGF receptor autophosphorylation
(IC50 = 0.8, 4.5 and 1.8 \mu M, resp.). These results highlight the biol.
characteristics of PD 089828 as a novel, broadly active protein tyrosine
kinase inhibitor with long-lasting but reversible
cellular effects. The potential therapeutic use of these broadly acting,
nonselective inhibitors as antiproliferative and antimigratory
agents could extend to such diseases as cancer, atherosclerosis and
restenosis in which redundancies in growth-signaling pathways are known to
exist.
144697-17-6, c-Src tyrosine kinase 147014-97-9
, Cyclin-dependent kinase-4
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
   (inhibition of growth factor-mediated tyrosine
   phosphorylation in vascular smooth muscle by new synthetic protein
   tyrosine kinase inhibitor PD 08928 in relation to
   potential therapeutic use)
```

IT

RN 144697-17-6 HCAPLUS

CN Kinase (phosphorylating), gene c-src protein (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

147014-97-9 HCAPLUS RN

CN Kinase (phosphorylating), protein p33CDK4 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L23 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:26258 HCAPLUS

DOCUMENT NUMBER: 126:59965

TITLE: Preparation of pyrido[2,3-d]pyrimidines as protein

tyrosine kinase mediated cell proliferation

inhibitors

INVENTOR(S): Blankley, Clifton John; Boschelli, Diane Harris;

> Doherty, Annette Marian; Hamby, James Marino ; Klutchko, Sylvester; Panek, Robert Lee

PATENT ASSIGNEE(S): Warner-Lambert Company, USA SOURCE:

PCT Int. Appl., 147 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PAT | rent : | | | | KIND | | DATE | | API | PLICAT | rion | NO. | | D. | ATE | | |
|---------------|--------|------|------|-----|------|-----|------|------|--------|--------|-------|-----|-----|-----|-------|-----|----|
| WO | 9634 | | | | | | 1996 | 1107 | WO | 1996- | -US58 | 19 | | 1 | 9960 | 426 | |
| | W: | AU, | BG, | CA, | CN, | CZ | EE, | GE, | HU, JI | , KR | LT, | LV, | MX, | NO, | NZ, | PL, | |
| | | RO, | SG, | SI, | SK, | UA, | UZ, | AM, | AZ, B | KG, | KZ, | MD, | RU, | TJ, | TM | | |
| | RW: | ΑT, | BE, | CH, | DE, | DK. | ES, | FI, | FR, G | 3, GR | IE, | ΙT, | LU, | MC, | NL, | PT, | SE |
| US | 5620 | 981 | | | Α | | 1997 | 0415 | US | 1995 | -4332 | 94 | | 1 | 9950 | 503 | |
| US | 5733 | 914 | | | Α | | 1998 | 0331 | US | 1996 | -6112 | 79 | | 1 | 9960 | 403 | |
| AU | 9655 | 769 | | | A1 | | 1996 | 1121 | AU | 1996- | -5576 | 9 | | 1 | 9960 | 426 | |
| AU | 7137 | 27 | | | B2 | | 1999 | 1209 | | | | | | | | | |
| EP | 8239 | 80 | | | A1 | | 1998 | 0218 | EP | 1996- | -9131 | 75 | | 1 | 9960 | 426 | |
| | R: | ΑT, | BE, | CH, | DE, | DK | ES, | FR, | GB, GI | R, IT, | LI, | LU, | NL, | SE, | MC, | PT, | |
| | | ΙE, | SI, | LT, | LV, | FI | | | | | | | | | | | |
| JP | 1150 | 4922 | - | | T2 | | 1999 | 0511 | JP | 1996- | -5333 | 72 | | 1 | 9960 | 426 | |
| NZ | 3070 | 21 | | | Α | | 2001 | 0427 | NZ | 1996- | -3070 | 21 | | 1 | 9960 | 426 | |
| EE | 3770 | | | | В1 | | 2002 | 0617 | EE | 1997- | -274 | | | 1 | 9960 | 426 | |
| \mathtt{PL} | 1840 | 93 | | | B1 | | 2002 | 0830 | PL | 1996- | -3230 | 89 | | 1 | 9960 | 426 | |
| SK | 2839 | 52 | | | В6 | | 2004 | 0608 | SK | 1997- | -1410 | | | 1 | 9960 | 426 | |
| NO | 9705 | 033 | | | Α | | 1997 | 1031 | NO | 1997- | -5033 | | | 1 | 9971 | 031 | |
| NO | 3101 | 10 | | | B1 | | 2001 | 0521 | | | | | | | | | |
| PRIORITY | APP | LN. | INFO | . : | | | | | US | 1995- | -4332 | 94 | i | A 1 | 9950 | 503 | |
| | | | | | | | | | US | 1996- | -6112 | 79 | 1 | A 1 | 996.0 | 403 | |
| | | | | | | | | | WO | 1996- | -US58 | 19 | 1 | W 1 | 9960 | 426 | |
| OTHER SO | DURCE | (S): | | | MARE | TAS | 126: | 5996 | 5 | | | | | | | | |

$$\mathbb{R}^{1}$$
 \mathbb{N} \mathbb{N} \mathbb{N} \mathbb{N} \mathbb{N} \mathbb{N} \mathbb{N}

GI

ΑB Title compds. [I; R = (un) substituted Ph or heteroaryl; R1 = NR3R4, SO0-2R3, OR3; R2-R4 = H, alkyl, (CH2)0-3Ph, heteroaryl, etc.; R4 may addnl. = COR3, CO2R3, SO2R3, etc.; NR3R4 = atoms to form a ring; X = O, S, (acyl)imino] were pred. Thus; EtOCH:C(CN)CO2Et was cyclocondensed with MeSC(:NH)NH2 and the product converted in 5 steps to 2-amino-4-methylamino-5-pyrimidinecarboxaldehyde which was cyclocondensed with 2,6-Me2C6H3CH2CN to give I (R = 2,6-Me2C6H3, R1 = NH2, R2 = Me, X = NH). Data for biol. activity of I were given.

ΙT 100-46-9, Benzylamine, reactions 5909-24-0

27431-62-5, 4-Diethylaminobutylamine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of pyrido[2,3-d]pyrimidines as protein tyrosine kinase mediated cell proliferation inhibitors)

Ext. 22524

100-46-9 HCAPLUS RN

CN Benzenemethanamine (9CI) (CA INDEX NAME) H_2N-CH_2-Ph

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 27431-62-5 HCAPLUS

CN 1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-NEt_2$

IT 185040-35-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrido[2,3-d]pyrimidines as protein tyrosine kinase mediated cell proliferation inhibitors)

RN 185040-35-1 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-(ethylamino)-2-(methylthio)- (9CI) (CA INDEX NAME)

L23 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:467130 HCAPLUS

DOCUMENT NUMBER: 125:114688

TITLE: Preparation of 6-aryl pyrido[2,3-d]pyrimidines and

naphthyridines for inhibiting protein

tyrosine kinase-mediated cellular

proliferation

INVENTOR(S):
Blankley, Clifton John; Doherty, Annette Marian;

Hamby, James Marino; Panek, Robert Lee; Schroeder, Mel Conrad; Showalter, Howard

Daniel Hollis; Connolly, Cleo

PATENT ASSIGNEE(S): Warner-Lambert Company, USA

SOURCE: PCT Int. Appl., 134 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PA | TENT | | | KIND DATE | | | APPLICATION NO. | | | | | | D. | ATE | | | | |
|---------------|-------|------|------|-----------|------|----|-----------------|------|------------------|--------------|-------|------|-----|-----|------|-------|-----|----|
| WO | 9615 | | | | | | | | W | | | | | | 1 | 9951: | 113 | |
| | W: | AM, | AU, | BG, | BY, | CA | , CN, | CZ, | EE, | FI, | GE, | HU, | JP, | KG, | KR, | KZ, | LT, | |
| | | | | | | | | | RU, | | | | | | | | | |
| | RW: | ΑT, | ΒE, | CH, | DE, | DK | , ES, | FR, | GB, | GR, | IE, | IT, | LU, | MC, | NL, | PT, | SE | |
| US | 5733 | 913 | | | Α | | 1998 | 0331 | U | S 1 | 995- | 5394 | 10 | | 1 | 9951 | 106 | |
| AU | 9641 | 078 | | | A1 | | 1996 | 0606 | A | U 1 | 996- | 4107 | 8 | | 1 | 9951 | 113 | |
| AU | 7114 | 26 | | | B2 | | 1999 | 1014 | | | | | | | | | | |
| EP | 7909 | 97 | | | A2 | | 1997 | 0827 | E | P 1 | 995- | 9391 | 29 | | 1 | 9951 | 113 | |
| EP | 7909 | 97 | | | B1 | | 2000 | 0322 | | | | | | | | | | |
| | | | | | | | | | GB, (| | | | | | | | | SE |
| JP | 1050 | 9452 | | | T2 | | 1998 | 0914 | Ј : А' | P 1 | 995- | 5162 | 40 | | 1 | 9951 | 113 | |
| AT | 1909 | 78 | | | E | | 2000 | 0415 | A' | Г 1 | 995- | 9391 | 29 | | 1 | 9951: | 113 | |
| SK | 2817 | 24 | | | В6 | | 2001 | 0710 | S | K 1 | 997- | 609 | | | 1 | 9951: | 113 | |
| \mathtt{PL} | 1818 | 93 | | | B1 | | 2001 | 1031 | P. | և 1 : | 995- | 3201 | 69 | | 1: | 9951 | 113 | |
| | | | | | | | | | M | | | | | | | | | |
| RU | 2191 | | | | | | | | RI | | | | | | | | | |
| BG | 6316 | 2 | | | B1 | | 2001 | 0531 | B | 3 1: | 997- | 1013 | 26 | | 1 | 99703 | 313 | |
| | | | | | | | | | F | | | | | | | | | |
| | | | | | | | | | N | 0 1: | 997- | 2198 | | | 1 | 9970 | 513 | |
| | 3082 | | | | | | | | | | | | | | | | | |
| GR | 3033 | 439 | | | Т3 | | 2000 | 0929 | G1 | | | | | | | | | |
| PRIORITY | Y APP | LN. | INFO | . : | | | | | U | S 19 | 994 - | 3390 | 51 | 1 | A 1: | 9941: | 114 | |
| | | | | | | | | | | | | | 10 | | | | | |
| | | | | | | | | | | | | | 700 | | | | | |
| OTHER SO | DURCE | (S): | | | MARP | TA | 125: | 1146 | 88 | | | | | | | | | |

OTHER SOURCE(S):

MARPAT 125:114688

GI

AB 6-Arylpyrido[2,3-d]pyrimidines and naphthyridines I [X = CH, N; B = halo,OH, NR3R4; R1, R2, R3, R4 = H, C1-8 alkyl, C2-8 alkenyl, C2-8 alkynyl, Ar', amino, Cl-8 alkylamino, di-Cl-8 alkylamino, wherein the alkyl, alkenyl, and alkynyl groups may be substituted by amino, OH, or 5- or 6-membered carbocyclic or heterocyclic ring; Ar, Ar' = (un)substituted aromatic or heteroarom. groups; R1R2N or R3R4N can complete a ring having 3-6 C atoms and optionally containing 1 or 2 heteroatoms; when X = N and B =NR3R4, one of R3 and R4 \neq H] or their pharmaceutically acceptable acid and base addition salts, useful as inhibitors of protein tyrosine kinase and thus useful in treating cellular proliferation mediated thereby, are claimed. The compds. are especially useful in treating atherosclerosis, restenosis, psoriasis, as well as bacterial infections. In an example, the IC50 of I [X = N, B = NHCONH2, R1 = H, R2]= Et2N(CH2)4 Ar = 2,6-Cl2C6H3; preparation given] for inhibition of protein tyrosine kinases was 0.231 μM for PDGF and 0.0954 for

IT 5909-24-0, Ethyl 4-chloro-2-methylthio-5-pyrimidinecarboxylate 27431-62-5, 4-(Diethylamino)butylamine

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of aryl pyridopyrimidines and naphthyridines for inhibiting protein tyrosine kinase-mediated cellular proliferation)

RN 5909-24-0 HCAPLUS

CN 5-Pyrimidinecarboxylic acid, 4-chloro-2-(methylthio)-, ethyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 27431-62-5 HCAPLUS

CN 1,4-Butanediamine, N,N-diethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_4-NEt_2$

IT 770-31-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aryl pyridopyrimidines and naphthyridines for inhibiting protein tyrosine kinase-mediated cellular proliferation)

RN 770-31-0 HCAPLUS

CN 5-Pyrimidinecarboxaldehyde, 4-amino-2-(methylthio)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

=> d ibib abs hitstr 127 1-12

L27 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:120672 HCAPLUS

DOCUMENT NUMBER: 142:198094

TITLE: Preparation of pyrimidopyrimidines as protein kinase

inhibitors

INVENTOR(S): Sim, Taebo; Lee, Hyun Soo; Ren, Pingda; Ding, Qiang;

Wang, Xia; Uno, Tetsuo; Zhang, Guobao; Liu, Yi; Li,

Bing; Li, Lintong; Gray, Nathaniel; You, Shuli

PATENT ASSIGNEE(S): IRM LLC, Bermuda

SOURCE: PCT Int

IRM LLC, Bermuda PCT Int. Appl., 148 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | | KIND DATE | | | | APPLICATION NO. | | | | | | DATE | | | |
|------------------------|------|------|-----|-----|-------------|-----|------|-------|-----------------|-----------------|------|------|-----|-----|------|----------|-----|--|
| | | | | | | - | | | | | | | | | | | | |
| · WO | 2005 | 0115 | 97 | | A2 20050210 | | | | | WO 2004-US24764 | | | | | | 20040729 | | |
| WO | 2005 | 0115 | 97 | | A3 | | 2005 | 0324 | | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DΖ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | ΚP, | KR, | ΚZ, | LC, | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | ТJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | |
| | | ΑZ, | BY, | KG, | ΚZ, | MD, | RU, | TJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | ΙT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | |
| | | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | ΝE, | |
| | | SN, | TD, | TG | | | | | | | | | | | | | | |
| PRIORITY APPLN. INFO.: | | | | | | | | | Ī | US 2 | 003- | 4911 | 33P |] | P 2 | 0030 | 729 | |
| OTHER SOURCE(S): GI | | | | | MAR: | PAT | 142: | 1980: | 94 | | | | | | | | | |

The invention provides a novel class of compds. I [n = 0-4; Z = N, CH; R1 = H, alkyl, arylalkyl, hydroxy, alkoxy, etc.; R2, R3 = H, alkyl; or R1 and R2 together form O or S; R4 = H, OH, NH2, alkyl, etc.; R5 = alkyl, alkenyl, alkoxy, etc.; R6 = NR12Y(O)R13, Y(O)NR12R13 (wherein Y = C, P(O), S(O); R12 = H, alkyl; R13 = aryl, heteroaryl, cycloalkyl, etc.)], pharmaceutical compns. comprising such compds. and methods of using such compds. to treat or prevent diseases or disorders associated with abnormal or deregulated kinase activity, particularly diseases or disorders that involve abnormal activation of the Abl, BCR-Abl, Bmx, c-Raf, Csk, Fes, FGFR, Flt3, Ikk, IR, JNK, Lck, Mkk, PKC, PKD, Rsk, SAPK, Syk, Trk, BTK, Src, EGFR, IGF, Mek, Ros and Tie2 kinases. E.g., a multi-step synthesis of II, starting from 4-amino-2-methylsulfanylpyrimidine-5-carbonitrile, was given. The compds. I show a percentage inhibition of greater than 50% against the mentioned above kinases at 10 μM.

IΤ 839705-51-0P 839705-52-1P 839705-53-2P 839705-54-3P 839705-55-4P 839705-56-5P 839705-57-6P 839705-58-7P 839705-59-8P 839705-60-1P 839705-61-2P 839705-62-3P 839705-63-4P 839705-64-5P 839705-65-6P 839705-66-7P 839705-67-8P 839705-69-0P 839705-70-3P 839705-71-4P 839705-72-5P 839705-73-6P 839705-74-7P 839705-75-8P 839705-76-9P 839705-77-0P 839705-78-1P 839705-79-2P 839705-80-5P 839705-81-6P 839705-82-7P 839705-83-8P 839705-84-9P 839705-85-0P 839705-86-1P 839705-87-2P 839705-88-3P 839705-89-4P 839705-90-7P 839705-91-8P 839705-92-9P 839705-93-0P 839705-94-1P 839705-95-2P 839705-97-4P 839705-98-5P 839705-99-6P 839706-00-2P 839706-01-3P 839706-02-4P 839706-03-5P

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839706-85-3P 839706-86-4P 839706-87-5P
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839707-83-4P 839707-84-5P 839707-85-6P
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839707-86-7P 839707-87-8P 839708-01-9P 839708-02-0P 839708-03-1P 839708-08-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidopyrimidines as protein kinase inhibitors)

RN 839705-51-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[(phenylmethyl)amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-52-1 HCAPLUS

CN Benzamide, N-[3-[7-[[3-[(aminocarbonyl)amino]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-53-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[[3-(hydroxymethyl)phenyl]amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \text{NH} \\ & \text{NH} \\ & \text{NH} \\ & \text{NH} \\ & \text{O} \\ & \text{NH} \\ & \text{CF}_3 \\ \end{array}$$

RN 839705-54-3 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[(4-methyl-1-piperazinyl)methyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

__CF3

RN 839705-55-4 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(aminosulfonyl)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

RN 839705-56-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[[3-(2-hydroxyethyl)phenyl]amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-57-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-(4-methyl-1-piperazinyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-58-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(2-phenylhydrazino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-59-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[[3-[(hydroxyacetyl)amino]phenyl]amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-60-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(4H-1,2,4-triazol-4-ylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-61-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(4-methyl-1-piperazinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-62-3 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(formylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-63-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-64-5 HCAPLUS

CN Benzamide, N-[3-[7-(cyclopropylamino)-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

Ext. 22524

RN 839705-65-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[(2-hydroxyethyl)amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-66-7 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-(2-hydroxyethyl)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-67-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[2-[(1-methylethyl)amino]ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

$$i\text{-PrNH-CH}_2\text{-CH}_2$$

PAGE 1-B

— CF3

RN 839705-69-0 HCAPLUS

CN Benzoic acid, 3-[[5,6,7,8-tetrahydro-8-methyl-6-[2-methyl-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \text{NH} \\ & \text{NH} \\ & \text{NH} \\ & \text{NH} \\ & \text{O} \\ & \text{Me} \\ & \text{O} \\ & \text{CF}_3 \\ & \text{CF}_4 \\ & \text{CF}_5 \\ & \text{CF}_5 \\ & \text{CF}_5 \\ & \text{CF}_5 \\ & \text$$

RN 839705-70-3 HCAPLUS

CN Benzamide, N-[3-[7-(cyclobutylamino)-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-71-4 HCAPLUS

CN Benzamide, N-[3-[7-(cyclopentylamino)-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

Ext. 22524

RN 839705-72-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[[(1S)-2-hydroxy-1-methylethyl]amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 839705-73-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[[(1R)-2-hydroxy-1-methylethyl]amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 839705-74-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(2-propenylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$H_2C = CH - CH_2 - NH$$

$$N$$

$$N$$

$$N$$

$$NH - C$$

$$O$$

$$CF_3$$

RN 839705-75-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(2-methyl-2-propenyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-ýl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-76-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & \text{Me} \\
 & \text{N} \\
 & \text{O}
\end{array}$$

$$\begin{array}{c|c}
 & \text{NH} \\
 & \text{O}
\end{array}$$

$$\begin{array}{c|c}
 & \text{NH} \\
 & \text{O}
\end{array}$$

$$\begin{array}{c|c}
 & \text{CF}_3
\end{array}$$

RN 839705-77-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[(4-methyl-1-piperazinyl)methyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(dimethylamino)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

Me N
$$\sim$$
 CH2 NH \sim NH \sim NH \sim CF3

PAGE 1-B

∠NMe₂

RN 839705-78-1 HCAPLUS

CN Benzamide, 3-(dimethylamino)-N-[3-[7-[[3-[(dimethylamino)methyl]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-79-2 HCAPLUS

CN Benzamide, N-[3-[7-[[3-[2-(dimethylamino)ethyl]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-80-5 HCAPLUS

CN Benzamide, N-[3-[7-[[3-[(2-aminoethyl)amino]phenyl]amino]-1,4-dihydro-1-

methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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PAGE 1-B

__ CF3

RN 839705-81-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[2-(methylamino)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-82-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[2-(4-morpholinyl)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

__ CF3

RN 839705-83-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[4-[2-(4-morpholinyl)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

Me

NHCH2-CH2

NH NH NH C

PAGE 1-B

__ CF3

RN 839705-84-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[4-[2-(methylamino)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-85-0 HCAPLUS

CN Benzamide, N-[3-[7-[[4-(2-aminoethyl)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{H}_2\text{N}-\text{CH}_2-\text{CH}_2 \\ \hline \\ \text{NH} \\ \hline \\ \text{N} \\ \end{array} \begin{array}{c} \text{Me} \\ \text{NH} \\ \hline \\ \text{O} \\ \end{array} \begin{array}{c} \text{CF}_3 \\ \\ \text{Me} \\ \end{array}$$

RN 839705-86-1 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(2-aminoethyl)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-87-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-(4-morpholinylmethyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \text{N} \\ & \text{NH} \\ & \text{NH} \\ & \text{NH} \\ & \text{CF3} \\ \end{array}$$

RN 839705-88-3 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[[3-(1H-imidazol-1-yl)propyl]amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$N \longrightarrow (CH_2)_3 - NH \longrightarrow N \longrightarrow NH \longrightarrow CF_3$$

RN 839705-89-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[3-[2-(1-piperazinyl)ethyl]phenyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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CF3

RN 839705-90-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[4-[2-(1-piperazinyl)ethyl]phenyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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∠CF3

RN 839705-91-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(3-methyl-5-isoxazolyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI). (CA INDEX NAME)

RN 839705-92-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[3-(1-piperazinylmethyl)phenyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \text{N} & \text{CH}_2 \\ & \text{N} & \text{N} \\ & \text{N} \\ & \text{N} \\ & \text{N} & \text{N} \\ & \text{N} & \text{N} \\ & \text{N} \\ & \text{N} \\ & \text{N} & \text{N} \\ & \text{N} \\$$

RN 839705-93-0 HCAPLUS

CN Benzamide, N-[3-[7-[[4-(4-ethyl-1-piperazinyl)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-94-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[4-(1-piperazinyl)phenyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-95-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(6-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-97-4 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839705-98-5 HCAPLUS

CN Benzamide, N-[3-[7-[(6-ethyl-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839705-99-6 HCAPLUS

CN Benzamide, N-[3-[7-[(6-ethenyl-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-00-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[6-(trifluoromethyl)-3-pyridinyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-01-3 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[6-[2-(4-morpholinyl)ethyl]-3-pyridinyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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__ CF3

RN 839706-02-4 HCAPLUS

CN Benzamide, N-[3-[7-[[6-[2-(diethylamino)ethyl]-3-pyridinyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-03-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(6-methyl-3-pyridinyl)amino]-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-04-6 HCAPLUS

CN Benzamide, N-[3-[7-[(4-fluorophenyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-05-7 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-1,4-dihydro-7-[(6-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-06-8 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-7-[(1,3-dimethyl-1H-pyrazol-5-yl)amino]-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-07-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(6-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-08-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3,4-dihydro-7-[(6-methyl-3-pyridinyl)amino]-3-[2-methyl-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-2-oxo-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & \\ & & & & \\ & & & \\ N & & \\$$

RN 839706-09-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(4-piperidinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-10-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3,4-dihydro-7-[(6-methyl-3-pyridinyl)amino]-3-[2-methyl-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-2-oxo-(9CI) (CA INDEX NAME)

Me
$$NH \longrightarrow NH \longrightarrow NH \longrightarrow NH \longrightarrow CF_3$$

RN 839706-11-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3,4-dihydro-N-methyl-7-[(6-methyl-3-pyridinyl)amino]-3-[2-methyl-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-2-oxo- (9CI) (CA INDEX NAME)

Me
$$CH_2-C-NHMe$$
 $NH-C$ CF_3 Me $NH-C$ CF_3

RN 839706-12-6 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-7-[(4-fluorophenyl)amino]-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-13-7 HCAPLUS

CN Benzamide, N-[3-[7-[(2,6-dimethyl-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-ethenylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-14-8 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-1,4-dihydro-7-[(3-methyl-5-isoxazolyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-15-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[4-(4-morpholinyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-16-0 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-1,4-dihydro-7-[[4-[2-(4-morpholinyl)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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__ CF3

RN 839706-17-1 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-7-[(2,6-dimethyl-3-pyridinyl)amino]-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-18-2 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-1,4-dihydro-7-[(2-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-19-3 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-7-[(4,6-dimethyl-3-pyridinyl)amino]-1,4-

dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-20-6 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-1,4-dihydro-2-oxo-7-(3-pyridinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-21-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[4-(trifluoromethyl)phenyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-22-8 HCAPLUS

CN Benzamide, N-[3-[1-cyclopropyl-1,4-dihydro-2-oxo-7-[[4-(trifluoromethyl)phenyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Ext. 22524

RN 839706-23-9 HCAPLUS

CN Benzamide, N-[3-[7-(ethylamino)-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-24-0 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-25-1 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-7-(ethylamino)-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-26-2 HCAPLUS

CN Benzamide, N-[3-[7-[(2,6-dimethyl-3-pyridinyl)amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-27-3 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[(2-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-28-4 HCAPLUS

CN Benzamide, N-[3-[7-[(2,6-dimethyl-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-ethylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-29-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-30-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\bigcap_{O} (CH_2)_3 - NH \longrightarrow N \longrightarrow NH - C \longrightarrow CF_3$$

RN 839706-31-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(4-morpholinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-32-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(4-morpholinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN 839706-33-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2,4-

Ext. 22524

dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-34-2 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-35-3 HCAPLUS

CN Benzamide, N-[3-[7-[(2,6-dimethyl-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-36-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-37-5 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-(4-ethyl-1-piperazinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-38-6 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(4-morpholinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-39-7 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(4-ethyl-1-piperazinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-40-0 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Ext. 22524

RN 839706-41-1 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-(4-morpholinylmethyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-42-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-morpholinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-43-3 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(4-ethyl-1-piperazinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-44-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-ethyl-1-piperazinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-45-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-46-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(4-morpholinylmethyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-47-7 HCAPLUS

CN 3-Pyridinecarboxamide, N-[3-[1,4-dihydro-1-methyl-7-[(6-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-1,2-dihydro-2-oxo-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-48-8 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-(9CI) (CA INDEX NAME)

RN 839706-49-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-(methylamino)-1-[2-(4-morpholinyl)ethyl]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-50-2 HCAPLUS

CN Benzamide, N-[3-[7-(ethylamino)-1,4-dihydro-1-[2-(4-morpholinyl)ethyl]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-51-3 HCAPLUS

CN Benzamide, N-[3-[7-(cyclopropylamino)-1,4-dihydro-1-[2-(4-morpholinyl)ethyl]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\bigcap_{N} \bigcap_{CH_2} \bigcap_{CH_2} \bigcap_{NH} \bigcap_{NH} \bigcap_{CF_3} \bigcap_{CF_3}$$

RN 839706-52-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[(2-methyl-2-propenyl)amino]-1-[2-(4-morpholinyl)ethyl]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} CH_2 \\ CH_2 \\ CH_2 \\ OMe \\ N \\ N \\ N \\ OMe \\ NH-C \\ CF_2 \\ OMe \\ NH-C \\ CF_3 \\ OMe \\ NH-C \\ OMe \\ NH-C \\ OMe \\ OM$$

RN 839706-53-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-[2-(4-morpholinyl)ethyl]-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-54-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-[2-(4-morpholinyl)ethyl]-7-[[4-(4-morpholinyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-55-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-(methylamino).-2-oxo-1-[2-(2-pyridinyl)ethyl]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-56-8 HCAPLUS

CN Benzamide, N-[3-[7-(ethylamino)-1,4-dihydro-2-oxo-1-[2-(2-pyridinyl)ethyl]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-57-9 HCAPLUS

CN Benzamide, N-[3-[7-(cyclopropylamino)-1,4-dihydro-2-oxo-1-[2-(2-pyridinyl)ethyl]pyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 839706-58-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[(2-methyl-3-pyridinyl)amino]-1-[2-(4-morpholinyl)ethyl]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-59-1 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-7-(ethylamino)-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-60-4 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[(1-methylethyl)amino]-2-

oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-61-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-(methylamino)-2-oxo-, methyl ester (9CI) (CA INDEX NAME)

RN 839706-62-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-N-methyl-7-(methylamino)-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-63-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-(methylamino)-2-oxo- (9CI) (CA INDEX NAME)

RN 839706-64-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-(methylamino)-2-oxo-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ \text{MeNH} & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 839706-65-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, N-ethyl-3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-(methylamino)-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-66-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-N,N-dimethyl-7-(methylamino)-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-67-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, N-cyclopropyl-3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-(methylamino)-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-68-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3,4-hydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-(methylamino)-N-(1-methylethyl)-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-69-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 7-(ethylamino)-3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-N-methyl-2-oxo- (9CI) (CA INDEX NAME)

RN 839706-70-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 7-[(1,3-dimethyl-1H-pyrazol-5-yl)amino]-3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-N-methyl-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-71-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 7-[(4,6-dimethyl-3-pyridinyl)amino]-3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-N-methyl-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-72-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3,4-dihydro-3-[3-methoxy-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-N-methyl-7-[(6-methyl-3-pyridinyl)amino]-2-oxo-(9CI) (CA INDEX NAME)

RN 839706-73-9 HCAPLUS

CN Benzamide, N-[3-(7-amino-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-74-0 HCAPLUS

CN Benzamide, N-[3-[7-(cyclopropylamino)-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-75-1 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[(6-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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RN 839706-76-2 HCAPLUS

CN Benzamide, N-[3-(7-amino-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-5-methoxyphenyl]-4-(2-methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-77-3 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-(2-methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-78-4 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-7-(ethylamino)-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-(2-methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-79-5 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[(1-methylethyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-(2-methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-80-8 HCAPLUS

CN Benzamide, N-[3-[7-(cyclopropylamino)-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-4-(2-methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-81-9 HCAPLUS

CN Acetamide, N-[3-[1-ethyl-1,4-dihydro-7-[[4-(4-morpholinyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-2,5-dimethoxyphenyl]- (9CI) (CA INDEX NAME)

RN 839706-82-0 HCAPLUS

CN Acetamide, N-[3-(7-amino-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-2,5-dimethoxyphenyl]- (9CI) (CA INDEX NAME)

RN 839706-83-1 HCAPLUS

CN Acetamide, N-[3-[1-ethyl-1,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-2,5-dimethoxyphenyl]- (9CI) (CA INDEX NAME)

RN 839706-84-2 HCAPLUS

CN Acetamide, N-[3-[1-ethyl-7-(ethylamino)-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-2,5-dimethoxyphenyl]- (9CI) (CA INDEX NAME)

Ext. 22524

RN 839706-85-3 HCAPLUS

CN Acetamide, N-[3-[7-(cyclopropylamino)-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-2,5-dimethoxyphenyl]- (9CI) (CAINDEX NAME)

RN 839706-86-4 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-7-[(1-ethyl-1H-pyrazol-5-yl)amino]-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-87-5 HCAPLUS

CN Benzamide, N-[3-[7-[(1,3-dimethyl-1H-pyrazol-5-yl)amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-88-6 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[(6-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-89-7 HCAPLUS

CN Benzamide, N-[3-[7-[(4,6-dimethyl-3-pyridinyl)amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-90-0 HCAPLUS

CN Benzamide, N-[3-[7-[(2,6-dimethyl-3-pyridinyl)amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-91-1 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[(2-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-

(9CI) (CA INDEX NAME)

RN 839706-93-3 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(2-methyl-4-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839706-94-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[4-(4-methyl-1-piperazinyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839706-96-6 HCAPLUS

CN Benzamide, N-[3-[7-[[4-[[[2-(dimethylamino)ethyl]amino]carbonyl]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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$$\begin{array}{c} \text{Me}_2\text{N-CH}_2\text{-CH}_2\text{-NH-C} \\ \\ \text{NH-NN-N} \\ \\ \text{NH-C} \\ \\ \text{NH-C} \\ \\ \text{O} \end{array}$$

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RN 839706-97-7 HCAPLUS

CN Benzamide, N-[3-[7-[[5-[(dimethylamino)methyl]-2-thiazolyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & \\ & & \\ \text{Me}_2\text{N}-\text{CH}_2 \end{array} \\ \text{Me} \\ & & \\ & & \\ \text{Me} \\ \end{array}$$

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839706-98-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[4-[(4-methyl-1-piperazinyl)methyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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RN 839706-99-9 HCAPLUS

CN Benzamide, N-[3-[7-[[4-[(dimethylamino)methyl]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me}_2\text{N-CH}_2 & \text{Me} \\ \hline & \text{NH} & \text{NH} & \text{CF}_3 \\ \hline & \text{Me} & \text{NH} & \text{CF}_3 \\ \hline \end{array}$$

RN 839707-00-5 HCAPLUS

CN Benzamide, N-[3-[7-[(3-cyanophenyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-01-6 HCAPLUS

CN Benzamide, N-[3-[7-[(5-cyano-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-02-7 HCAPLUS

CN Benzamide, N-[3-[7-[(2,6-dimethyl-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-03-8 HCAPLUS

CN Benzamide, N-[3-[7-[(4,6-dimethyl-3-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-04-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[(4-methoxy-3-pyridinyl)amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-05-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[(2-methoxy-3-pyridinyl)amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-06-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(2-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-07-2 HCAPLUS

CN Benzamide, N-[3-[7-[(2,4-dimethyl-5-thiazolyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-08-3 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1,4-dimethyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA . INDEX NAME)

RN 839707-09-4 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1,4-dimethyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)phenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-10-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1,4-dimethyl-2-oxo-7-(3-pyridinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-11-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1,4-dimethyl-2-oxo-7-(3-pyridinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]phenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-12-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-(methylamino)-1-[2-(4-morpholinyl)ethyl]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-13-0 HCAPLUS

CN Benzamide, N-[3-[7-amino-1,4-dihydro-1-[2-(4-morpholinyl)ethyl]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-14-1 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-

d]pyrimidin-3(2H)-yl)-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-15-2 HCAPLUS

CN Benzamide, N-[3-[7-(ethylamino)-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-16-3 HCAPLUS

CN Benzamide, N-[3-[7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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RN 839707-17-4 HCAPLUS

CN Benzamide, N-[3-(7-amino-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-18-5 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-7-(ethylamino)-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-19-6 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[[3-(4-morpholinyl)propyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-20-9 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[[4-(4-morpholinyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-21-0 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-2-oxo-7-(3-pyridinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-22-1 HCAPLUS

CN Benzamide, N-[3-[7-(cyclopropylamino)-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-23-2 HCAPLUS

CN Benzamide, N-[3-[1-ethyl-1,4-dihydro-7-[(2-methyl-2-propenyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-24-3 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(diethylamino)propyl]amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-25-4 HCAPLUS

CN Benzamide, N-[3-[7-[[4-(diethylamino)butyl]amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-26-5 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-5-methoxyphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-27-6 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-nitro-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-28-7 HCAPLUS

CN Benzamide, 3-amino-N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & & \\$$

RN 839707-29-8 HCAPLUS

CN Benzamide, N-[3-[7-[[3-[[(2S)-2-amino-1-oxopropyl]amino]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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 \sim_{CF_3}

RN 839707-30-1 HCAPLUS

CN Benzamide, N-[3-[7-[[3-[[(2S)-2-amino-3-methyl-1-oxobutyl]amino]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CAINDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 839707-31-2 HCAPLUS

CN Benzamide, N-[3-[7-[[6-[3-(dimethylamino)-1-pyrrolidinyl]-3-pyridinyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-32-3 HCAPLUS

CN Benzamide, N-[3-[7-[[6-[[2-(dimethylamino)ethyl]methylamino]-3-pyridinyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{Me} \\ \text{Me}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{N} \\ \text{N} \end{array}$$

PAGE 1-B

__ CF3

RN 839707-33-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(2-pyrimidinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839707-34-5 HCAPLUS

CN Benzamide, N-[3-[7-[(5,6-dimethyl-1,2,4-triazin-3-yl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839707-35-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(pyrazinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839707-36-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(3-methyl-5-isothiazolyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

$$\stackrel{\text{Me}}{\underset{N-S}{\longrightarrow}} \stackrel{\text{NH}}{\underset{N}{\longrightarrow}} \stackrel{\text{NH}}{\underset{N}{\longrightarrow}} \stackrel{\text{CF}_3}{\underset{Me}{\longrightarrow}}$$

RN 839707-37-8 HCAPLUS

CN Benzamide, N-[3-[7-[(1,3-dimethyl-1H-pyrazol-5-yl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-38-9 HCAPLUS

CN Benzamide, N-[3-[7-[(1-ethyl-1H-pyrazol-5-yl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-39-0 HCAPLUS

CN Benzamide, N-[3-[7-[[6-[2-(dimethylamino)-1-methylethoxy]-3-pyridinyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} \text{Me} \\ \text{Me}_2\text{N-CH}_2\text{-CH-O} \\ \text{N} \\ \text{$$

PAGE 1-B

RN 839707-40-3 HCAPLUS

CN Benzamide, N-[3-[7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3- (trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

∠CF3

RN 839707-41-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-(4-methyl-1-piperazinyl)propyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-43-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(4-methyl-3-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-44-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(3-methyl-4-pyridinyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839707-45-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[5-(4-morpholinylmethyl)-3-pyridinyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-46-9 HCAPLUS

CN Benzamide, N-[3-[7-[[6-(diethylamino)-3-pyridinyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-47-0 HCAPLUS

CN Benzamide, N-[3-[7-[[6-(ethylamino)-3-pyridinyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-48-1 HCAPLUS

CN Benzamide, N-[3-[7-[(2,6-dimethyl-4-pyridinyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-49-2 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-50-5 HCAPLUS

CN Benzamide, N-[3-[7-[(5-ethyl-1,3,4-thiadiazol-2-yl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839707-53-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(5-methyl-1H-pyrazol-3-yl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839707-54-9 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(4H-1,2,4-triazol-4-yl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{CF3} \\ & \text{H}_2\text{N} & \text{NH} - \text{C} & \text{N} \\ & \text{N} & \text{N} & \text{N} \end{array}$$

RN 839707-55-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(1-methyl-1H-pyrazol-3-yl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839707-56-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(1-methyl-1H-pyrazol-5-yl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-57-2 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(4-morpholinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-58-3 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-(2-methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & & \text{Me} \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

RN 839707-59-4 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-(4-morpholinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-60-7 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(dimethylamino)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-61-8 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-[(diethylamino)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-62-9 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-(4-morpholinylmethyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-63-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-morpholinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-64-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(dimethylamino)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-65-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4H-1,2,4-triazol-4-yl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-66-3 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(2-methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-67-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(4-morpholinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-68-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(4-methyl-1-piperazinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-69-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(4-ethyl-1-piperazinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-70-9 HCAPLUS

CN Benzamide, 4-[(cyclopropylamino)methyl]-N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-71-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Ext. 22524

RN 839707-72-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(1-pyrrolidinylmethyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-73-2 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-(4-morpholinylmethyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-74-3 HCAPLUS

CN Benzamide, 4-[(diethylamino)methyl]-N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-75-4 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-(4-methyl-1-piperazinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & & \\$$

RN 839707-76-5 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-(4-ethyl-1-piperazinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-77-6 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-78-7 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-(1-pyrrolidinylmethyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-79-8 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-4-[(4-methyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-80-1 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(4-methyl-1-piperazinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ & \\ N \\ & \\ N \\ & \\ NH-C \\ & \\ N$$

RN 839707-81-2 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-[3-(dimethylamino)-1-pyrrolidinyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{CF3} \\ & \text{N} & \text{N} & \text{N} \\ & \text{N} & \text{N} \\ & \text{N} & \text{N} \\ & \text{N} &$$

RN 839707-82-3 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(4-ethyl-1-piperazinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-83-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-84-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-ethyl-1-piperazinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-85-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-[3-(dimethylamino)-1-pyrrolidinyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-86-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-methyl-1-piperazinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839707-87-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-4-[(4-methyl-1-piperazinyl)methyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-01-9 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839708-02-0 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[(methylsulfonyl)amino]phenyl] amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Ext. 22524

RN 839708-03-1 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[(methylsulfonyl)amino]phenyl] amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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PAGE 1-A

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RN 839708-08-6 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[(4-methyl-2-thiazolyl)amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE IT 839708-09-7P 839708-10-0P 839708-11-1P

839708-13-3P 839708-17-7P 839708-22-4P 839708-23-5P 839708-24-6P 839708-25-7P 839708-26-8P 839708-27-9P 839708-28-0P 839708-32-6P 839708-33-7P 839708-34-8P 839708-35-9P 839708-36-0P 839708-37-1P 839708-38-2P 839708-39-3P 839708-40-6P 839708-41-7P 839708-42-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidopyrimidines as protein kinase inhibitors) 839708-09-7 HCAPLUS

CN 4-Thiazoleacetic acid, 2-[[5,6,7,8-tetrahydro-8-methyl-6-[2-methyl-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 839708-10-0 HCAPLUS

RN

CN Benzamide, N-[3-[7-[(3-aminophenyl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839708-11-1 HCAPLUS

CN Benzamide, N-[3-[7-(cyclohexylamino)-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839708-13-3 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-17-7 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1-ethyl-1,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839708-22-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-7-[(3-hydroxyphenyl)amino]-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 839708-23-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-(4-morpholinylsulfonyl)phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-24-6 HCAPLUS

CN Benzamide, N-[3-[7-[[3-[(dimethylamino)methyl]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-25-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

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PAGE 1-B

— CF3

RN 839708-26-8 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[2-(4-methyl-1-piperazinyl)-4-pyridinyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-27-9 HCAPLUS

CN 1-Piperazinecarboxamide, 4-methyl-N-[3-[[5,6,7,8-tetrahydro-8-methyl-6-[2-methyl-5-[[3-(trifluoromethyl)benzoyl]amino]phenyl]-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]phenyl]- (9CI) (CA INDEX NAME)

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RN 839708-28-0 HCAPLUS

CN Benzamide, N-[3-[7-[[[(2R)-1-ethyl-2-pyrrolidinyl]methyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 839708-29-1 HCAPLUS

CN Benzamide, N-[3-(7-amino-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl)-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-30-4 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(4-pyridinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-31-5 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(3-pyridinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-32-6 HCAPLUS

CN Benzamide, N-[3-[7-[[6-(dimethylamino)-3-pyridinyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-33-7 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-7-[[3-[(4-methyl-1-piperazinyl)carbonyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Ext. 22524

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PAGE 1-B

— CF3

RN 839708-34-8 HCAPLUS

CN Benzamide, N-[3-[7-[[3-[[[2-(dimethylamino)ethyl]amino]carbonyl]phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-B

Ext. 22524

RN 839708-35-9 HCAPLUS

CN Benzamide, N-[3-[1,4-dihydro-1-methyl-2-oxo-7-(5-pyrimidinylamino)pyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-36-0 HCAPLUS

CN Benzamide, 3-(acetylamino)-N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-37-1 HCAPLUS

CN Benzamide, 3-[2-(dimethylamino)ethoxy]-N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-38-2 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-[2-(4-morpholinyl)ethoxy]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} CF_3 \\ N - CH_2 - CH_2 - O \end{array}$$

PAGE 1-B

RN 839708-39-3 HCAPLUS

CN Benzamide, 3-[[2-(dimethylamino)ethyl]amino]-N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-40-6 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-methyl-1-piperazinyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-41-7 HCAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-1-methyl-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 839708-42-8 HCAPLUS

CN Benzamide, N-[3-[7-[[3-(dimethylamino)phenyl]amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-4-methylphenyl]-3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

IT 839708-47-3P 839708-48-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidopyrimidines as protein kinase inhibitors)

RN 839708-47-3 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[[3-(dimethylamino)phenyl]amino]-3,4-dihydro-1-methyl-3-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)

RN 839708-48-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(5-amino-2-methylphenyl)-7-[[3-

Ext. 22524

(dimethylamino)phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

L27 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:857176 HCAPLUS

DOCUMENT NUMBER: 141:350187

TITLE: Preparation of pyrimido compounds having

antiproliferative activity

INVENTOR(S): Chen, Yi; Dermatakis, Apostolos; Liu, Jin-jun; Luk,

Kin-chun; Michoud, Christophe; Rossman, Pamela Loreen

PATENT ASSIGNEE(S):

SOURCE: U.S. Pat. Appl. Publ., 55 pp.

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DOCUMENT TYPE: Patent LANGUAGE: English

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| US 2004204427 | A1 | 20041014 | US 2004-817697 | 20040402 |
| WO 2004089955 | A1 | 20041021 | WO 2004-EP3447 | 20040401 |
| W: AE, AG, | AL, AM, A | T, AU, AZ, | BA, BB, BG, BR, BW, | BY, BZ, CA, CH, |
| CN, CO, | CR, CU, C | Z, DE, DK, | DM, DZ, EC, EE, EG, | ES, FI, GB, GD, |
| GE, GH, | GM, HR, H | U, ID, IL, | IN, IS, JP, KE, KG, | KP, KR, KZ, LC, |
| LK, LR, | LS, LT, L | U, LV, MA, | MD, MG, MK, MN, MW, | MX, MZ, NA, NI, |
| NO, NZ, | OM, PG, P | H, PL, PT, | RO, RU, SC, SD, SE, | SG, SK, SL, SY, |
| TJ, TM, | TN, TR, T | T, TZ, UA, | UG, US, UZ, VC, VN, | YU, ZA, ZM, ZW |
| RW: BW, GH, | GM, KE, L | S, MW, MZ, | SD, SL, SZ, TZ, UG, | ZM, ZW, AM, AZ, |
| BY, KG, | KZ, MD, RI | U, TJ, TM, | AT, BE, BG, CH, CY, | CZ, DE, DK, EE, |
| ES, FI, | FR, GB, G | R, HU, IE, | IT, LU, MC, NL, PL, | PT, RO, SE, SI, |
| SK, TR, | BF, BJ, C | F, CG, CI, | CM, GA, GN, GQ, GW, | ML, MR, NE, SN, |
| TD, TG | | | | |
| RITY APPLN. INFO | .: | | US 2003-461694P | P 20030410 |

PRIOR

OTHER SOURCE(S): MARPAT 141:350187

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Disclosed are methods for preparing novel pyrimido compds. I [R1 = H, (un) substituted-alkyl, -cycloalkyl, -alkynyl, etc.; R2 and R3 independently = H, halo, (un)substituted-alkyl, -alkenyl, etc.; R4-8
independently = H, hydroxyalkyl, alkoxyalkyl, halo, etc.] that are selective inhibitors of both KDR and FGFR kinases. Thus, e.g., II was prepd via acylation of trans-4-(tert-butyldimethylsilanyloxy)cyclohexylami ne (preparation given) with phosgene and subsequent cyclization with (2,4-dichloropyrimidin-5-ylmethyl)(4-methoxyphenyl)amine followed by desilylation. The IC50 values for I were as follows: KDR less than 0.50 μM ; FGFR less than 2 μM . These compds. and their pharmaceutically acceptable salts are anti-proliferative agents useful in the treatment or control of solid tumors, in particular breast, colon, lung and prostate tumors. Also disclosed are pharmaceutical compns. containing these compds. and methods of treating cancer.

IT 774232-16-5P, 3-[3-(4-Methoxyphenyl)-2-oxo-7-phenylamino-3,4dihydro-1H-pyrimido[4,5-d]pyrimidin-1-yl]propionitrile 774232-32-5P, 4-[3-(4-Methoxyphenyl)-2-oxo-7-phenylamino-3,4dihydro-2H-pyrimido[4,5-d]pyrimidin-1-yl]piperidine-1-carboxylic acid tert-butyl ester 774232-33-6P, trans-1-[4-(tert-Butyldimethylsilanyloxy)cyclohexyl]-3-(4-methoxyphenyl)-7-phenylamino-3,4dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-34-7P, 3-[3-(4-Methoxyphenyl)-2-oxo-7-phenylamino-3,4-dihydro-2H-pyrimido[4,5d]pyrimidin-1-yl]piperidine-1-carboxylic acid tert-butyl ester 774232-35-8P, cis-1-[3-(tert-Butyldimethylsilanyloxy)cyclopentyl]-3-(4-methoxyphenyl)-7-phenylamino-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-44-9P 774232-45-0P 774232-50-7P 774232-55-2P 774232-58-5P 774232-60-9P 774232-61-0P 774232-62-1P 774232-63-2P 774232-64-3P 774232-68-7P 774232-71-2P RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (drug candidate; preparation of pyrimido[4,5-d]pyrimidinones as selective inhibitors of both KDR and FGFR kinases) RN 774232-16-5 HCAPLUS CNPyrimido [4,5-d] pyrimidine-1(2H) -propanenitrile, 3,4-dihydro-3-(4-

RN 774232-32-5 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[3,4-dihydro-3-(4-methoxyphenyl)-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

methoxyphenyl)-2-oxo-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 774232-33-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[trans-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-34-7 HCAPLUS

CN 1-Piperidinecarboxylic acid, 3-[3,4-dihydro-3-(4-methoxyphenyl)-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 774232-35-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1R,3S)-3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclopentyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-44-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(3,4-dimethoxyphenyl)amino]-1[trans-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexyl]-3,4-dihydro-3(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 774232-45-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[trans-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-50-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1R,3R)-3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclopentyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-, rel- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 774232-55-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1S,3S)-3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclopentyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 774232-58-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1- $[(1\alpha,3\alpha,5\alpha)-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]$ cyclohexyl]-3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

774232-60-9 HCAPLUS RN

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, $1-[(1\alpha,3\alpha,5\alpha)-3,5$ bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]cyclohexyl]-3,4-dihydro-3-(4methoxyphenyl)-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN774232-61-0 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1- $[(1\alpha,3\alpha,5\alpha)-3,5$ bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]cyclohexyl]-7-[(4-fluoro-3methoxyphenyl)amino]-3,4-dihydro-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 774232-62-1 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[(1 α ,3 α ,5 α)-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]cyclohexyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-63-2 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin -2(1H) -one, $1-[(1\alpha,3\alpha,5\alpha)-3,5-$ bis [[(1,1-dimethylethyl)diphenylsilyl] oxyl cyclohexyl] -3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Ext. 22524

RN 774232-64-3 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin -2 (1H) -one, $1-[(1\alpha,3\alpha,5\alpha)-3,5-bis[[(1,1-dimethylethyl)diphenylsilyl]oxy]$ cyclohexyl] -3-(2-fluoro-4-methoxyphenyl)-7-[(4-fluoro-3-methoxyphenyl)amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-68-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1R)-2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-3-(4-ethylphenyl)-7-[(4-fluorophenyl)amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-71-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1R,3R)-3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclopentyl]-3-(4-ethylphenyl)-7-[(4-fluorophenyl)amino]-3,4-dihydro-, rel-(9CI) (CA INDEX NAME)

Relative stereochemistry.

IT 774231-91-3P, 1-Cyclohexyl-3-(4-methoxyphenyl)-7-phenylamino-3,4dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774231-92-4P, 3-(4-Methoxyphenyl)-7-phenylamino-1-piperidin-4-yl-3,4-dihydro-1Hpyrimido [4,5-d] pyrimidin-2-one 774231-93-5P, 1-(trans-4-Hydroxycyclohexyl)-3-(4-methoxyphenyl)-7-phenylamino-3,4dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774231-94-6P, 3-(4-Methoxyphenyl)-7-phenylamino-1-piperidin-3-yl-3,4-dihydro-1Hpyrimido[4,5-d]pyrimidin-2-one 774231-95-7P, 1-Cyclopentyl-3-(4-methoxyphenyl)-7-phenylamino-3,4-dihydro-1Hpyrimido [4,5-d] pyrimidin-2-one 774231-96-8P, 1-(1,1-Dioxo-tetrahydrothiophen-3-yl)-3-(4-methoxyphenyl)-7-phenylamino-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774231-97-9P, 3-[3-(4-Methoxyphenyl)-2-oxo-7-phenylamino-3,4-dihydro-2H-pyrimido[4,5d]pyrimidin-1-yl]piperidine-1-carboxaldehyde 774231-98-0P, 3-(4-Methoxyphenyl)-7-phenylamino-1-(tetrahydro-pyran-4-yl)-3,4-dihydro-1Hpyrimido[4,5-d]pyrimidin-2-one 774231-99-1P, 1-(trans-3-Hydroxycyclopentyl)-3-(4-methoxyphenyl)-7-phenylamino-3,4dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-00-7P, 1-(cis-3-Hydroxycyclopentyl)-3-(4-methoxyphenyl)-7-phenylamino-3,4-dihydro-1H-pyrimido [4,5-d] pyrimidin-2-one 774232-01-8P,

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(R)-3-(4-Methoxyphenyl)-7-phenylamino-1-(tetrahydrofuran-3-yl)-3,4-dihydro-
1H-pyrimido [4,5-d] pyrimidin-2-one 774232-02-9P,
(R)-3-(4-Methoxyphenyl)-7-phenylamino-1-(pyrrolidin-3-yl)-3,4-dihydro-1H-
pyrimido [4,5-d] pyrimidin-2-one 774232-03-0P,
trans-7-(4-Fluorophenylamino)-1-(3-hydroxycyclopentyl)-3-(4-methoxyphenyl)-
3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-04-1P,
trans-3-(2-Fluoro-4-methoxyphenyl)-1-(3-hydroxycyclopentyl)-7-phenylamino-
3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-05-2P,
(S)-(+)-1-(2-Hydroxy-1-methylethyl)-3-(4-methoxyphenyl)-7-phenylamino-3,4-
dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-06-3P,
(S)-(+)-7-(4-Fluorophenylamino)-1-(2-hydroxy-1-methylethyl)-3-(4-
methoxyphenyl)-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-07-4P, trans-3-(2-Fluoro-4-methoxyphenyl)-1-(4-
hydroxycyclohexyl) -7-(4-methoxyphenylamino) -3,4-dihydro-1H-pyrimido[4,5-
d]pyrimidin-2-one 774232-08-5P, trans-3-(2-Fluoro-4-
methoxyphenyl)-1-(4-hydroxycyclohexyl)-7-(3,4-dimethoxyphenylamino)-3,4-
dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-09-6P,
trans-3-(4-Methoxyphenyl)-1-(4-hydroxycyclohexyl)-7-(3,4-
dimethoxyphenylamino) -3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-10-9P, trans-3-(4-Methoxyphenyl)-1-(4-hydroxycyclohexyl)-7-
(4-methoxyphenylamino) -3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-11-0P, (S)-(+)-3-(2-Fluoro-4-methoxyphenyl)-7-(4-
fluorophenylamino) -1-(2-hydroxy-1-methylethyl) -3,4-dihydro-1H-pyrimido[4,5-
d]pyrimidin-2-one 774232-12-1P, (S)-(+)-3-(2-Fluoro-4-
methoxyphenyl)-1-(2-hydroxy-1-methylethyl)-7-(4-methoxyphenylamino)-3,4-
dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-13-2P,
(R)-(-)-1-(2-Hydroxy-1-methylethyl)-3-(4-methoxyphenyl)-7-phenylamino-3,4-
dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one 774232-14-3P,
3-(4-Methoxyphenyl)-1-methyl-7-phenylamino-3,4-dihydro-1H-pyrimido[4,5-
d]pyrimidin-2-one 774232-15-4P, 1-(2-Methoxyethoxymethyl)-3-(4-
methoxyphenyl)-7-phenylamino-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-17-6P 774232-18-7P, (R)-1-(2-Hydroxypropyl)-3-(4-
methoxyphenyl)-7-phenylamino-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-19-8P 774232-21-2P, 3-[3-(4-Methoxyphenyl)-2-oxo-
7-phenylamino-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-1-yl]propionamide
774232-22-3P, (S) - (+) -1 - (2 - Hydroxypropy1) -3 - (4 - methoxypheny1) -7 -
phenylamino-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-23-4P 774232-24-5P 774232-25-6P
774232-26-7P 774232-27-8P 774232-28-9P
774232-29-0P, (R)-3-(4-Ethylphenyl)-7-(4-fluorophenylamino)-1-(2-
hydroxy-1-methylethyl)-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-30-3P, trans-3-(4-Ethylphenyl)-7-(4-fluorophenylamino)-1-(3-
hydroxycyclopentyl)-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
774232-31-4P, 1-Cyclopropylmethyl-3-(4-methoxyphenyl)-7-
phenylamino-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2-one
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (drug candidate; preparation of pyrimido[4,5-d]pyrimidinones as selective
   inhibitors of both KDR and FGFR kinases)
774231-91-3 HCAPLUS
Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclohexyl-3,4-dihydro-3-(4-
methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)
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RN

CN

RN 774231-92-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-1-(4-piperidinyl)- (9CI) (CA INDEX NAME)

RN 774231-93-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-(trans-4-hydroxycyclohexyl)-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774231-94-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-1-(3-piperidinyl)- (9CI) (CA INDEX NAME)

Ext. 22524

RN 774231-95-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 774231-96-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-1-(tetrahydro-1,1-dioxido-3-thienyl)- (9CI) (CA INDEX NAME)

RN 774231-97-9 HCAPLUS

CN 1-Piperidinecarboxaldehyde, 3-[3,4-dihydro-3-(4-methoxyphenyl)-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

Ext. 22524

RN 774231-98-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-1-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

RN 774231-99-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1R,3R)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-7-(phenylamino)-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-00-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1R,3S)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-7-(phenylamino)-, rel- (9CI) (CAINDEX NAME)

Ext. 22524

RN 774232-01-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-1-[(3R)-tetrahydro-3-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-02-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-1-(3R)-3-pyrrolidinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-03-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1R,3R)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-04-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-1-[(1R,3R)-3-hydroxycyclopentyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-05-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1S)-2-hydroxy-1-methylethyl]-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 774232-06-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1S)-2-hydroxy-1-methylethyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 774232-07-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-1-(trans-4-hydroxycyclohexyl)-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

RN 774232-08-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(3,4-dimethoxyphenyl)amino]-3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-1-(trans-4-hydroxycyclohexyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-09-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[(3,4-dimethoxyphenyl)amino]-3,4-dihydro-1-(trans-4-hydroxycyclohexyl)-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 774232-10-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-(trans-4-hydroxycyclohexyl)-3-(4-methoxyphenyl)-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

RN 774232-11-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-4-methoxyphenyl)-7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1S)-2-hydroxy-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 774232-12-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-1-[(1S)-2-hydroxy-1-methylethyl]-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 774232-13-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 774232-14-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-1-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 774232-15-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(2-methoxyethoxy)methyl]-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 774232-17-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1R,3R)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 774232-18-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(2R)-2-hydroxypropyl]-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-19-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1S,3S)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 774232-21-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-propanamide, 3,4-dihydro-3-(4-methoxyphenyl)-2-oxo-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 774232-22-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(2S)-2-hydroxypropyl]-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 774232-23-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[(1 α ,3 α ,5 α)-3,5-dihydroxycyclohexyl]-3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-7-[(4-methoxyphenyl)amino]-, rel- (9CI) (CA INDEX NAME)

RN 774232-24-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin -2 (1H) -one, $1-[(1\alpha,3\alpha,5\alpha)-3,5-dihydroxycyclohexyl] -3,4-dihydro-3-(4-methoxyphenyl) -7-[(4-methoxyphenyl) amino] - (9CI) (CA INDEX NAME)$

Relative stereochemistry.

RN 774232-25-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin -2(1H) -one, $1-[(1\alpha,3\alpha,5\alpha)-3,5-d$ ihydroxycyclohexyl] -7-[(4-fluoro-3-methoxyphenyl) amino] -3,4-dihydro-3-(4-methoxyphenyl) - (9CI) (CA INDEX NAME)

RN 774232-26-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin -2(1H) -one, $1-[(1\alpha,3\alpha,5\alpha)-3,5-dihydroxycyclohexyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)-(9CI) (CA INDEX NAME)$

Relative stereochemistry.

RN 774232-27-8 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[(1 α ,3 α ,5 α)-3,5-dihydroxycyclohexyl]-3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 774232-28-9 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, $1-[(1\alpha,3\alpha,5\alpha)-3,5-dihydroxycyclohexyl]-3-(2-fluoro-4-methoxyphenyl)-7-[(4-fluoro-3-methoxyphenyl) amino]-3,4-dihydro-(9CI) (CA INDEX NAME)$

Relative stereochemistry.

RN 774232-29-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-ethylphenyl)-7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

774232-30-3 HCAPLUS RN

Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(4-ethylphenyl)-7-[(4-ethyCN fluorophenyl)amino]-3,4-dihydro-1-[(1R,3S)-3-hydroxycyclopentyl]-, rel-(CA INDEX NAME)

Relative stereochemistry.

RN 774232-31-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-(cyclopropylmethyl)-3,4-dihydro-3-(4methoxyphenyl) -7-(phenylamino) - (9CI) (CA INDEX NAME)

ΙT 774232-74-5P 774232-75-6P 774232-78-9P 774232-79-0P 774232-80-3P 774232-86-9P

774232-90-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of pyrimido[4,5-d]pyrimidinones as selective inhibitors of both KDR and FGFR kinases)

RN 774232-74-5 HCAPLUS

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1S)-2-[[(1,1-CN dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-3,4-dihydro-3-(4methoxyphenyl) - 7 - (phenylamino) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-75-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1S)-2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-7-[(4-fluorophenyl)amino]-3,4-dihydro-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-78-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1S)-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-7-[(4-fluorophenyl)amino]-3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 774232-79-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1S)-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-80-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1R)-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 774232-86-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(2R)-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]propyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 774232-90-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[(2S)-2-[[(1,1-

dimethylethyl)diphenylsilyl]oxy]propyl]-3,4-dihydro-3-(4-methoxyphenyl)-7-

(phenylamino) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L27 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:412946 HCAPLUS

DOCUMENT NUMBER: 140:423694

TITLE: Preparation of pyrimidopyrimidinone derivatives having

anticancer activity

INVENTOR(S): Dermatakis, Apostolos; Kabat, Marek Michal; Luk,

Kin-Chun; Rossman, Pamela Loreen; So, Sung-Sau

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

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PATENT INFORMATION:

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APPLICATION NO.
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                                  20040521 WO 2003-EP11896
                                                                        20031027
     WO 2004041822
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         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
              GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
              LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
              OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
              TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2004110773
                                  20040610
                                             US 2003-689438
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                           A1
                                               US 2003-689235
     US 2005075272
                           A1
                                  20050407
                                                                        20031020
                                               US 2002-423670P P 20021104
PRIORITY APPLN. INFO.:
                         MARPAT 140:423694
OTHER SOURCE(S):
GΙ
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- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- AB The title compds. I [R1 = H, (substituted)alkyl, (substituted)aryl,
 (substituted)heteroaryl, (substituted)heterocycle,
 (substituted)cycloalkyl, (substituted)alkenyl, (substituted)alkynyl; R2,
 R3, R4 = H, halo, COR10, CO2R10, CONR10R11, SOR10, SO2R10, CN, or NO2; R5,
 R6, R7, R8 = H, (substituted)alkyl, (substituted)amino, OH, halo, etc.; R9
 = H, -COOCR12R13OCOR14, or COR15; R10, R11 = H, (substituted)alkyl,
 (substituted)cycloalkyl, (substituted)heterocycle, etc.; R12, R13 = H,
 alkyl; R14 = (substituted)alkyl; R15 = H, alkyl or cycloamines with 3-7
 atoms] were prepared as anti-proliferative agents for the treatment or
 control of solid tumors, in particular breast, colon, lung and prostate
 tumors. For example, reaction of 7-chloro-3-(4-methoxyphenyl)-4-methyl-1 phenyl-3,4-dihydro-1H-pyrimido[4,5-d]-2-one (preparation given) with aniline
 yielded compound II. The latter showed inhibition of KDR, FGFR, EGFR and
 PDGFR with IC50 < 10 μM.</pre>
- IT 690991-80-1P 690991-82-3P
 - RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (preparation of pyrimidopyrimidinone derivs. having anticancer activity) RN 690991-80-1 HCAPLUS
- CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-1-phenyl-7-(phenylamino)-, (4R)- (9CI) (CA INDEX NAME)

RN 690991-82-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-1-phenyl-7-(phenylamino)-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 690991-78-7P 690991-94-7P

RN

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of pyrimidopyrimidinone derivs. having anticancer activity) 690991-78-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 690991-94-7 HCAPLUS

CN Benzonitrile, 3-[3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-4-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

IT 690991-84-5P 690991-86-7P 690991-88-9P 690991-90-3P 690991-92-5P 690991-96-9P 690991-98-1P 690992-00-8P 690992-02-0P 690992-04-2P 690992-06-4P 690992-12-2P 690992-16-6P 690992-17-7P 690992-19-9P 690992-21-3P 690992-23-5P 690992-25-7P 690992-27-9P 690992-29-1P 690992-30-4P 690992-32-6P 690992-34-8P 690992-36-0P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pyrimidopyrimidinone derivs. having anticancer activity) RN 690991-84-5 HCAPLUS Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1,3-bis(4-methoxyphenyl)-4-CN methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 690991-86-7 HCAPLUS
CN Benzonitrile, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxo-7(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

RN 690991-88-9 HCAPLUS

CN Benzamide, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ H_2N-C \\ \hline \\ PhNH \\ N \\ \hline \\ Me \\ \end{array}$$

RN 690991-90-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 4-ethyl-3,4-dihydro-3-(4-methoxyphenyl)-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 690991-92-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-4-methyl-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 690991-96-9 HCAPLUS

CN Benzamide, 3-[3-(2-fluoro-4-methoxyphenyl)-3,4-dihydro-4-methyl-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ H_2N-C \\ \hline \\ PhNH \\ N \\ \hline \\ Me \\ F \\ \end{array} \\ OMe$$

RN 690991-98-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-(1-methylethyl)-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 690992-00-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chloro-5-methoxyphenyl)-3,4-dihydro-4-methyl-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 690992-02-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1S)-2-hydroxy-1-methylethyl]-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-04-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 690992-06-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)-, (4S)- (9CI) (CA INDEX NAME)

Ext. 22524

Absolute stereochemistry. Rotation (-).

RN 690992-12-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)-1-[(1S)-1-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-16-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-(trans-4-hydroxycyclohexyl)-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 690992-17-7 HCAPLUS

Ext. 22524

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1R,3R)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)-, (4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-19-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-[(1S,3R)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)-, (4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-21-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1R,3R)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-4-methyl-, (4S)-(9CI) (CA INDEX NAME)

Ext. 22524

RN 690992-23-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1S,3S)-3-hydroxycyclopentyl]-3-(4-methoxyphenyl)-4-methyl-, (4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-25-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-3-(4-methoxyphenyl)-4-methyl-, (4S)-(9CI) (CA INDEX NAME)

RN 690992-27-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(4-chlorophenyl)-7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-4-methyl-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-29-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(4-chloro-2-fluorophenyl)-7-[(4-fluorophenyl)amino]-3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-4-methyl-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-30-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(4-chlorophenyl)-3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-4-methyl-7-(phenylamino)-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-32-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(4-chloro-2-fluorophenyl)-3,4-dihydro-1-[(1R)-2-hydroxy-1-methylethyl]-4-methyl-7-(phenylamino)-, (4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-34-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(4-chlorophenyl)-3,4-dihydro-1-[(2S)-3-hydroxy-2-methylpropyl]-4-methyl-7-(phenylamino)-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-36-0 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(4-chloro-2-fluorophenyl)-3,4-

Ext. 22524

dihydro-1-[(2S)-3-hydroxy-2-methylpropyl]-4-methyl-7-(phenylamino)-, (4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 690992-65-5P 690992-70-2P 690992-72-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidopyrimidinone derivs. having anticancer activity)

RN 690992-65-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1S)-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 690992-70-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[(1R)-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)-, (4R)- (9CI) (CA INDEX NAME)

RN 690992-72-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[(1R)-2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-methylethyl]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-(phenylamino)-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2004:412945 HCAPLUS

DOCUMENT NUMBER:

140:423693

TITLE:

Preparation of pyrimido Src tyrosine kinase inhibitors

as anti-proliferative agents for the treatment of

cancer

INVENTOR(S):

Luk, Kin-Chun; Rossman, Pamela Loreen; Scheiblich,

Stefan; So, Sung-Sau

PATENT ASSIGNEE(S):

F. Hoffmann-La Roche A.-G., Switz.

SOURCE:

PCT Int. Appl., 59 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

2

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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WO 2004041821
                                20040521
                                            WO 2003-EP311892
                                                                   20031027
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             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
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                                                                   20031020
PRIORITY APPLN. INFO.:
                                            US 2002-423670P
                                                                P 20021104
OTHER SOURCE(S):
                        MARPAT 140:423693
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

MovPyrimido compds. I (R1 = H, alkyl, substituted alkyl, aryl, heteroaryl, heterocycle, cycloalkyl, alkenyl, alkynyl; R2,R3,R4 independently = H, amine, alkoxy, sulfanyl, alkyl, cycloalkyl, alkenyl, alkynyl; R5, R6, R7, R8 independently = H, lower alkyl, amine, OH, alkoxy, sulfanyl, halogen, ketone, ester, amide, sulfonyl, CN; R9 = H, diester, ketone), that are selective inhibitors of the Src family of tyrosine kinases are prepared for the treatment of breast, colon, pancreatic, and hepatic cancers. Thus, 1-(2,4-dichloro-pyrimidin-5-yl)-ethanol was treated with phosphorus oxybromide and diisopropyl amine to give 2,4-dichloro-5-(1-bromoethyl)pyrimidine which was treated with p-anisidine, potassium carbonate, and potassium iodide to give the corresponding amine. The above amine was reacted with 3-cyanophenyl isocyanate in toluene to give II. II was reacted with acetic acid 2-(3-amino-phenyl)-Et ester, followed by treatment with potassium carbonate in methanol to give III. III showed and IC50 of less than 1.0 µM against Src tyrosine kinase. Also disclosed are pharmaceutical compns. containing these compds. and the use for treating cancer.

IT 690995-25-6P 690995-29-0P 690995-31-4P

690995-33-6P

RN

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of pyrimido Src tyrosine kinase inhibitors as anti-proliferative agents for the treatment of cancer)

690995-25-6 HCAPLUS

CN Benzonitrile, 3-[7-[[3-[2-(dimethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

RN 690995-29-0 HCAPLUS

CN Benzonitrile, 3-[3,4-dihydro-7-[[3-[2-hydroxyethyl]phenyl]amino]-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

RN 690995-31-4 HCAPLUS

CN . Benzonitrile, 3-[7-[[3-[2-(diethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-(9CI)(CA INDEX NAME)

RN 690995-33-6 HCAPLUS

CN Benzonitrile, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-[[3-[2-(4-methyl-1-piperazinyl)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

IT 690995-35-8P 690995-36-9P 690995-37-0P 690995-38-1P 690995-39-2P 690995-40-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimido Src tyrosine kinase inhibitors as anti-proliferative agents for the treatment of cancer)

RN 690995-35-8 HCAPLUS

CN Benzamide, 3-[7-[[3-[2-(diethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

RN 690995-36-9 HCAPLUS

CN Benzamide, 3-[7-[[3-[2-(dimethylamino)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & \\ & & \\ \text{Me}_2\text{N}-\text{C}\\ & & \\ &$$

RN 690995-37-0 HCAPLUS

CN Benzamide, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-[[3-[2-(4-methyl-1-piperazinyl)ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-(9CI) (CA INDEX NAME)

RN 690995-38-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1,4-dimethyl-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ &$$

RN 690995-39-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1,4-dimethyl- (9CI) (CA

INDEX NAME)

RN 690995-40-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1,4-dimethyl-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ &$$

IT 690995-23-4P 690995-24-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimido Src tyrosine kinase inhibitors as anti-proliferative agents for the treatment of cancer)

RN 690995-23-4 HCAPLUS

CN Benzonitrile, 3-[7-[[3-[2-(acetyloxy)ethyl]phenyl]amino]-3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

RN 690995-24-5 HCAPLUS

CN Benzonitrile, 3-[3,4-dihydro-3-(4-methoxyphenyl)-4-methyl-7-[[3-[2-[(methylsulfonyl)oxy]ethyl]phenyl]amino]-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & &$$

L27 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2004:372873 HCAPLUS

DOCUMENT NUMBER:

140:391294

TITLE:

Preparation of amino-substituted dihydropyrimido[4,5-

d]pyrimidinone derivatives as inhibitors of src family

tyrosine kinases

INVENTOR(S):

Cai, Jianping; Dimoudis, Nikolaos; Honold, Konrad; Luk, Kin-Chun; Scheiblich, Stefan; Sudergat, Hilke;

Tiefenthaler, Georg; Tonn, Oliver

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 31 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| • | PATENT NO. | | | | | KIND | | DATE | | APPLICATION NO. | | | | | | DATE | | | | |
|------------------------|------------|--------------------------------|-----|-----|--|--------------------------|-----|----------|-----|-----------------|-----|-----|-----|-----|----------|----------|-----|-----|----|--|
| | | | | | | | - | | | | | | | | | | | | | |
| 1 | US | JS 2004087600 JO 2004041823 | | | | A1 | | 20040506 | | US 2003-697543 | | | | | | 20031030 | | | | |
| 1 | WO | | | | | A1 | | 20040521 | | WO 2003-EP12203 | | | | | 20031103 | | | | | |
| | | W : | | | | | | AU, | | | | | | | | | | | | |
| | | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | | |
| | | | GE, | GH, | GM, | HR, | HU, | ID, | ΙL, | IN, | IS, | JΡ, | KΕ, | KG, | ΚP, | KR, | KZ, | LC, | | |
| | | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | | |
| | | | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | ТJ, | | |
| | | | | | | | | UA, | | | | | | | | | | | | |
| | | RW: | | | | | | MW, | | | | | | | | | | | | |
| | | | | | | | | ТJ, | | | | | | | | | | | | |
| | | | | | | | | HU, | | | | | | | | | | | | |
| | | | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | TG | |
| PRIORITY APPLN. INFO.: | | | | | | EP 2002-24573 A 20021104 | | | | | | | | | | | | | | |
| OTHER SOURCE(S): GI | | | | | CASREACT 140:391294; MARPAT 140:391294 | | | | | | | | | | | | | | | |

AB The title compds. [I; R1 = H, alkyl, aryl, etc.; R2 = halo, CN, CF3; R3 = halo, OH, CN, etc.; n = 0-2; R4 = H, alkyl, alkoxy, CN; A = (un)substituted 2,3-dihydrobenzo[1,4]dioxin-6-yl, benzodioxane-6-yl, 3-oxo-3,4-dihydro-2H-benzo[1,4]thiazin-7-yl, etc.] which are protein kinase inhibitors, in particular they inhibit the src family tyrosine kinases, and therefore useful for the treatment of diseases mediated by src tyrosine kinases, including cell proliferative disorders such as cancer, were prepared Thus, reacting 3-(2-bromophenyl)-3,4-dihydro-7-methanesulfonyl-1-methylpyrimido[4,5-d]pyrimidin-2(1H)-one with 2-hydroxymethyl-6-amino-1,4-benzodioxane (preparation given) afforded 3-(2-bromophenyl)-7-(2-hydroxymethyl-2,3-dihydro-benzo[1,4]dioxin-6-ylamino)-1-methyl-3,4-dihydro-1H-pyrimido[4,5-d]pyrimidin-2(1H)-one which showed IC50 of 7.5 nM against src kinase, and IC50 of 6.3 nM against lck kinase. The pharmaceutical composition containing the compound I is claimed.

IT 686756-87-6P 686756-91-2P 686756-98-9P 686757-21-1P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of amino-substituted dihydropyrimido[4,5-d]pyrimidinones as inhibitors of src family tyrosine kinases)

RN 686756-87-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2,3-dihydro-2-(hydroxymethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686756-91-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2-(chloromethyl)-2,3-dihydro-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686756-98-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2,3-dihydro-2-[[(4-methylphenyl)sulfonyl]oxy]methyl]-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-21-1 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[(3,4-dihydro-4-methyl-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

IT 686756-95-6P 686757-02-8P 686757-06-2P 686757-10-8P 686757-14-2P 686757-17-5P 686757-25-5P 686757-29-9P 686757-33-5P 686757-37-9P 686757-40-4P 686757-44-8P 686757-48-2P 686757-55-1P 686757-60-8P 686757-65-3P 686757-70-0P 686757-73-3P 686757-78-8P 686757-82-4P 686757-88-0P 686757-93-7P 686759-58-0P 686759-62-6P 686759-66-0P 686759-70-6P 686759-74-0P 686759-78-4P 686759-86-4P 686759-92-2P 686760-11-2P 686760-03-2P 686760-18-9P 686760-22-5P 686760-26-9P

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of amino-substituted dihydropyrimido[4,5-d]pyrimidinones as inhibitors of src family tyrosine kinases)

RN 686756-95-6 HCAPLUS

CN

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2,3-dihydro-2-(4-morpholinylmethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-02-8 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2-[(dimethylamino)methyl]-2,3-dihydro-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-06-2 HCAPLUS

CN Spiro[1,3-benzodioxole-2,4'-piperidine], l'-acetyl-5-[[6-(2-bromophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-(9CI) (CA INDEX NAME)

RN 686757-10-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-1-methyl-7-(spiro[1,3-benzodioxole-2,4'-piperidin]-5-ylamino)- (9CI) (CA INDEX NAME)

RN 686757-14-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686757-17-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-3,4-dihydro-1,4-dimethyl-, (4R)-(9CI) (CA INDEX NAME)

RN 686757-25-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-7-[(3-methoxy-4-methyl-1-oxido-4H-1,4-benzothiazin-7-yl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-29-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[(3,4-dihydro-4-methyl-1,1-dioxido-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-33-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-[[6-(2-bromophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-2-(2-hydroxy-1,1-dimethylethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 686757-37-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-3,4-dihydro-1-methyl-7-(spiro[1,3-benzodioxole-2,4'-piperidin]-5-ylamino)- (9CI) (CA INDEX NAME)

RN 686757-40-4 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-[[6-(2-bromophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-2-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 686757-44-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,3-dioxido-1,3-benzoxathiol-5-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-48-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-(1,3-benzodioxol-5-ylamino)-3-(2-bromophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-55-1 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-[[6-(2-bromo-6-fluorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-2-methyl-(9CI) (CA INDEX NAME)

RN 686757-60-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[(3,4-dihydro-4-methyl-1,1-dioxido-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686757-65-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-5-methoxyphenyl)-7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686757-70-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-3-(2-fluoro-6-methoxyphenyl)-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686757-73-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-3,4-dihydro-1,4-dimethyl-, (4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 686757-78-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-1,1-dioxido-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1,4-dimethyl-, (4R)- (9CI) (CA INDEX NAME)

RN 686757-82-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-1,1-dioxido-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1,4-dimethyl-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 686757-88-0 HCAPLUS

CN Benzonitrile, 2-[7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-3-fluoro-(9CI) (CA INDEX NAME)

RN 686757-93-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2,3-dihydro-2-(1-pyrrolidinylmethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686759-58-0 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-(1,3-benzodioxol-5-ylamino)-3-(2,4-dichlorophenyl)-3,4-dihydro-1-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 686759-62-6 HCAPLUS

CN Benzonitrile, 2-[7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-1,4-dihydro-1-methyl-2-oxopyrimido[4,5-d]pyrimidin-3(2H)-yl]- (9CI) (CA INDEX NAME)

RN 686759-66-0 HCAPLUS

CN Spiro[1,3-benzodioxole-2,4'-piperidine]-1'-carboxylic acid, 5-[[6-(2-bromophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, ethyl ester (9CI) (CA INDÉX NAME)

RN 686759-70-6 HCAPLUS

CN Spiro[1,3-benzodioxole-2,4'-piperidine], 1'-acetyl-5-[[6-(2-bromo-6-fluorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 686759-74-0 HCAPLUS

CN Spiro[1,3-benzodioxole-2,4'-piperidine]-1'-carboxylic acid,
5-[[6-(2-bromo-6-fluorophenyl)-5,6,7,8-tetrahydro-8-methyl-7oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

RN 686759-78-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(1'-ethylspiro[1,3-benzodioxole-2,4'-piperidin]-5-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686759-82-0 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-7-[[1'-(2-methoxyethyl) spiro [1,3-benzodioxole-2,4'-piperidin]-5-yl] amino]-1-methyl-(9CI) (CA INDEX NAME)

RN 686759-86-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-3,4-dihydro-7-[[1'-(2-methoxyethyl)spiro[1,3-benzodioxole-2,4'-piperidin]-5-yl]amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 686759-92-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-1-methyl-7-[(1'-methylspiro[1,3-benzodioxole-2,4'-piperidin]-5-yl)amino]- (9CI) (CA INDEX NAME)

RN 686759-99-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-3,4-dihydro-1-methyl-7-[(1'-methylspiro[1,3-benzodioxole-2,4'-piperidin]-5-yl)amino]-(9CI) (CA INDEX NAME)

RN 686760-03-2 HCAPLUS

CN Spiro[1,3-benzodioxole-2,4'-piperidine]-1'-acetonitrile, 5-[[6-(2-bromophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \\ & & \\ \hline \\ 0 & N \\ N \\ & N \\ \end{array}$$

RN 686760-07-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-5-methoxyphenyl)-3,4-dihydro-1-methyl-7-(spiro[1,3-benzodioxole-2,4'-piperidin]-5-ylamino)-(9CI) (CA INDEX NAME)

RN 686760-11-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(2,3-dihydro-1,4-benzodioxin-6-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

Ext. 22524

RN 686760-14-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2,3-dihydro-3-(1-pyrrolidinylmethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686760-18-9 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[[2-[(dimethylamino)methyl]-2,3-dihydro-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-22-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[3-[(dimethylamino)methyl]-2,3-dihydro-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-26-9 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[[3-[(dimethylamino)methyl]-2,3-dihydro-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \\ & & \\ \hline & & \\ &$$

RN 686760-30-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2-[(cyclopropylamino)methyl]-2,3-dihydro-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-34-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2,3-dihydro-3-(4-morpholinylmethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \\ & & \\ \hline \\ & & \\ & & \\ Br & \\ \end{array}$$

RN 686760-37-2 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[[2,3-dihydro-3-(4-morpholinylmethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-41-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[[2,3-dihydro-3-(1-pyrrolidinylmethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-47-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[2,3-dihydro-3-(hydroxymethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-51-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[[2,3-dihydro-3-(hydroxymethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

Ext. 22524

RN 686760-55-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[[2,3-dihydro-2-(hydroxymethyl)-1,4-benzodioxin-6-yl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686760-59-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(2,3-dihydro-1,4-benzoxathiin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-63-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-67-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(2,3-dihydro-4,4-dioxido-1,4-benzoxathiin-6-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-70-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-74-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-78-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-1-oxido-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686760-82-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686760-92-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[(3,4-dihydro-3-oxo-2H-1,4-benzothiazin-6-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686760-96-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-3-oxo-2H-1,4-benzothiazin-6-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

Ext. 22524

RN 686761-00-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[(3,4-dihydro-4-methyl-3-oxo-2H-1,4-benzothiazin-6-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686761-07-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-1,1-dioxido-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 686761-11-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-1,1-dioxido-3-oxo-2H-1,4-benzothiazin-7-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686761-18-2 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-[[6-(2-bromophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-2-methyl- (9CI) (CA INDEX NAME)

RN 686761-21-7 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-[[6-(2-bromophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 686761-25-1 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-[[6-(2-bromo-6-fluorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 686761-29-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-[[6-(2-bromo-6-fluorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-2-(2-hydroxy-1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

RN 686761-36-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromo-6-fluorophenyl)-7-[(3,3-dioxido-1,3-benzoxathiol-5-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 686766-23-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[(3,4-dihydro-4-methyl-3-oxo-2H-1,4-benzothiazin-6-yl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

L27 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:162462 HCAPLUS

DOCUMENT NUMBER: 140:199340

TITLE: Preparation of pyrimidopyrimidinone derivatives having

antiproliferative activity

INVENTOR(S): Chen, Yi; Daniewski, Andrzej Robert; Harris, William;

Kabat, Marek Michal; Liu, Emily Aijun; Liu, Jin-jun;

Luk, Kin-chun; Michoud, Christophe

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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| U | US 2004038995 | | | | A1 2004 | | | 040226 US 2003-623972 | | | | | 72 | 20030721 | | | | |
| W | WO 2004018472 | | | | A2 | | 20040304 | | 1 | WO 2 | 003- | EP87 | 44 | | 20030807 | | | |
| W | WO 2004018472 | | | | А3 | A3 20040 | | | :29 | | | | | | | | | |
| | W : | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, | |
| | | | | | | | DK, | | | | | | | | | | | |
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| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NO, | NZ, | OM, | PH, | |
| | | | | | | | SE, | | | | | | | | | | | |
| | | UG, | UZ, | VN, | YU, | ZA, | ZM, | ZW | | • | • | | | • | • | • | • | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, | |
| | | | | | | | TM, | | | | | | | | | | | |
| • | | FI, | FR. | GB, | GR, | HU, | IE, | IT, | LU, | MC, | NL, | PT. | RO, | SE. | SI. | SK. | TR. | |
| | | | | | • | • | CM, | • | • | • | • | • | • | • | • | • | • | |
| PRIORITY APPLN. INFO.: | | | | | • | • | • | • | • | | • | | | • | P 2 | | | |
| OTHER SOURCE(S): | | | | | MAR | | | | | | | | | | | | | |
| GT | | | | | | | | | | | | | | | | | | |

AB The title I [R1 = H, COR4, COOCHR5OCOR4; R2,R3 = H or OR5; R4 = alkyl, or alkyl substituted by NR5R6, SR5, OR5, (substituted)aryl, heteroaryl, heterocycle; R5, R6 = H, alkyl or NR5R6 form a ring optionally including one or more addnl. N or O] were prepared as selective inhibitors of both KDR

Ι

and FGFR kinases and are selective against LCK. Thus, reaction of 7-chloro-3-(4-methoxyphenyl)-1-phenyl-1,3,4-trihydropyrimidino[4,5-d]-2-one (preparation given) with aniline yielded compound II (R1, R2, R3 = H). The latter showed inhibition of KDR, FGFR, EGFR and PDGFR with IC50 = 0.044, 0.076, 0.360, and 0.130 μ M, resp.

IT 663198-02-5P 663198-20-7P 663198-33-2P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of pyrimidopyrimidinone derivs. having antiproliferative activity)

RN 663198-02-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-1-phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 663198-20-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-7-[(4-methoxyphenyl)amino]-1-phenyl- (9CI) (CA INDEX NAME)

RN 663198-33-2 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[[4-[[(1,1-dimethylethyl)dimethylsilyl]oxy] phenyl] amino]-3,4-dihydro-3-(4-methoxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

IT 663198-18-3P 663198-22-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidopyrimidinone derivs. having antiproliferative activity)

RN 663198-18-3 HCAPLUS

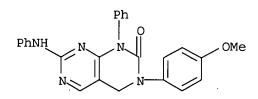
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[(4-hydroxyphenyl)amino]-3-(4-methoxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

RN 663198-22-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(4-methoxyphenyl)-1-phenyl-7-(phenylamino)-, mono(methanesulfonate) (9CI) (CA INDEX NAME)

CM 1

CRN 663198-02-5 CMF C25 H21 N5 O2



CM 2

CRN 75-75-2 CMF C H4 O3 S

L27 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:80385 HCAPLUS

DOCUMENT NUMBER: 140:146153

TITLE: Preparation of pyrimidopyrimidinones as kinase

inhibitors

INVENTOR(S): Chivikas, Connolly Cleo J.; Deur, Christopher James;

Hamby, James Marino; Hoyer, Denton Wade; Limberakis, Chris; Reed, Jessica Elizabeth; Schroeder, Mel Conrad;

Taylor, Clarke

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 44 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT I | NO. | KINI | KIND DATE | | | APPLICATION NO. | | | | | DATE | | | |
|--------------|---------------|---------|-------------------|------|----------------|-----------------|--------|------------|-----|----------|----------|---------|--|--|
| US 2004 | 019210 | A1 | 2004 | 0129 | U. | S 2003 | 3-6219 | - - | | 2 | 0030 | 717 | | |
| CA 2493 | 533 | AA | AA 20040205 | | | CA 2003-2493633 | | | | | 20030721 | | | |
| WO 2004 | WO 2004011465 | | | | WO 2003-IB3359 | | | | | 20030721 | | | | |
| W : | AE, AG, | AL, AM, | AT, AU, | AZ, | BA, | BB, BC | B, BR, | BY, | ΒZ, | CA, | CH, | CN, | | |
| | CO, CR, C | CU, CZ, | DE, DK, | DM, | DZ, | EC, E | E, ES, | FI, | GB, | GD, | GE, | GH, | | |
| • | GM, HR, I | ∙U, ID, | IL, IN, | IS, | JP, | KE, KO | KP, | KR, | ΚZ, | LC, | LK, | LR, | | |
| | LS, LT, | LU, LV, | MA, MD, | MG, | MK, I | MN, MV | I, MX, | MZ, | NI, | NO, | NZ, | OM, | | |
| | PG, PH, | PL, PT, | RO, RU, | SC, | SD, | SE, SO | S, SK, | SL, | SY, | TJ, | TM, | TN, | | |
| | TR, TT, | ΓZ, UA, | UG, US, | UΖ, | VC, | VN, YU | J, ZA, | ZM, | ZW | | | | | |
| RW: | GH, GM, 1 | Œ, LS, | MW, MZ, | SD, | SL, | SZ, TZ | Z, UG, | ZM, | ZW, | AM, | AZ, | BY, | | |
| | KG, KZ, I | MD, RU, | TJ, TM, | AT, | BE, | BG, CH | I, CY, | CZ, | DE, | DK, | EE, | ES, | | |
| | FI, FR, (| B, GR, | HU, IE, | IT, | LU, I | MC, NI | J, PT, | RO, | SE, | SI, | SK, | TR, | | |
| | BF, BJ, | CF, CG, | CI, CM, | GA, | GN, | GQ, GV | , ML, | MR, | NE, | SN, | TD, | TG | | |
| PRIORITY APP | LN. INFO. | : | | | U | S 2002 | -3986 | 38P |] | P 2 | 0020 | 725 | | |
| | | | | | W | 0 2003 | -IB33 | 59 | 7 | W 2 | 0030 | 721 | | |
| OTHER SOURCE | (S) : | MARI | MARPAT 140:146153 | | | | | | | | | | | |

GI

$$\begin{array}{c|c}
R^{4} \\
R^{5} \\
R^{6} \\
R^{1}
\end{array}$$

This invention provides phenyl-substituted pyrimidopyrimidines, dihydropyrimidopyrimidines, pyridopyrimidines, naphthyridines, and pyridopyrazines of the general formula I [A = O, NH2, mono(or di)alkylamino, NHCONHR12 (wherein R12 = alkyl, alkylenecycloalkyl); B, C, D = CH, N (with the proviso that C and D are not both N); R1 = alkyl

Ι

ΙI

(optionally substituted by CO2H), (un) substituted Ph, CH2Ph, piperidinyl, etc.; R2 = H, Cl, F; R3 = H, Cl, F (at least one of R2 or R3 = F); R4 = H, OH, OMe, OEt (if R4 = H, R2 and R3 is not H); R5 = OMe, OEt; R6 = H, alkyl-NH2, O-alkyl-NH2, etc.] that inhibit cyclin-dependent kinase and tyrosine kinase enzymes, methods and intermediates for their synthesis, as well as pharmaceutical compns. and methods for their use in treating, inhibiting or preventing maladies associated with cell proliferative disorders, including angiogenesis, atherosclerosis, restenosis, and cancer (no biol. data given). Synthesis of 35 title compds. I is described. E.g., a multi-step synthesis of II was given.

IT 651734-15-5P 651734-16-6P 651734-35-9P 651734-43-9P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of pyrimidopyrimidinones as kinase inhibitors)

RN 651734-15-5 HCAPLUS

CN

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[4-(diethylamino)butyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-16-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[[(4S,5S)-5-(hydroxymethyl)-2-phenyl-1,3-dioxolan-4-yl]methyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-35-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 651734-43-9 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

1T 651734-14-4P 651734-17-7P 651734-18-8P 651734-19-9P 651734-20-2P 651734-21-3P 651734-22-4P 651734-23-5P 651734-24-6P 651734-25-7P 651734-26-8P 651734-27-9P 651734-31-5P 651734-32-6P 651734-33-7P 651734-34-8P 651734-36-0P 651734-38-2P 651734-39-3P 651734-40-6P 651734-41-7P 651734-42-8P 651734-45-1P 651734-46-2P 651734-50-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidopyrimidinones as kinase inhibitors)

RN 651734-14-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[4-(diethylamino)butyl]amino]-3-(2,6-difluoro-3-hydroxy-5-methoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-17-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[(2S,3S)-2,3,4-trihydroxybutyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-18-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 651734-19-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{HO-CH}_2 \\ \text{HO-CH}_2\text{-CH-NH} \\ & \text{N} \\ & \text{N} \\ & \text{OMe} \\ \end{array}$$

RN 651734-20-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(3-amino-2-hydroxypropyl)amino]-1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-21-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-(2-hydroxyethoxy)ethyl]amino]- (9CI)

(CA INDEX NAME)

RN 651734-22-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopropyl-7-[[4-(diethylamino)butyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-23-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-(diethylamino)butyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et}_{2N^{-}} \text{ (CH}_{2})_{4} - \text{NH} & \\ N & N & N & \\ N & N & \\ N & N & \\ O\text{Me} & \\ \end{array}$$

RN 651734-24-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]- (9CI) (CA INDEX NAME)

Ext. 22524

RN 651734-25-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 651734-26-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2R,3R)-2,3-dihydroxybutyl]amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-27-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2R)-2,3-dihydroxypropyl]amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-28-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-amino-2,3-dihydroxybutyl)amino]-1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 651734-29-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[(2S,3S)-2,3,4-trihydroxybutyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-30-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[2-(2-hydroxyethoxy)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 651734-31-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[(2S,3S)-4-amino-2,3-dihydroxybutyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-32-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[[3-[bis(2-

hydroxyethyl)amino]propyl]amino]-3-(2,6-difluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

HO-CH₂-CH₂
HO-CH₂-CH₂

$$N$$
-CH₂-N-(CH₂)₃-NH
 N -N
 N -O
 N -OMe
 N -OMe

RN 651734-33-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2S)-2,3-dihydroxypropyl]amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 651734-34-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2R,3R)-2,3-dihydroxybutyl]amino]-1-ethyl-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 651734-36-0 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]- (9CI) (CA INDEX NAME)

RN 651734-38-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-amino-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-1-(4-piperidinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 651734-37-1

CMF C19 H22 F2 N6 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 651734-39-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ \text{HO-CH}_2 \\ \text{HO-CH}_2 - \text{CH-NH} \\ & & & \\ \text{N} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$$

RN 651734-40-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-ethyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[(4-hydroxybutyl)amino]- (9CI) (CA INDEX NAME)

RN 651734-41-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[(2S)-2,3-dihydroxypropyl]amino]-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 651734-42-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluoro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 651734-45-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(methylamino)-1-(4-piperidinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 651734-44-0 CMF C20 H24 F2 N6 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 651734-46-2 HCAPLUS CN Pyrimido [4.5-d] pyrim

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-difluoro-3,5-dimethoxyphenyl)-7-[[(2R)-2,3-dihydroxypropyl]amino]-1-ethyl-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} OH & Et \\ HO & N & N & O \\ \hline N & N & N & N & O \\ \hline N & N & N & N & O \\ \hline N & N & N & N & O \\ \hline N & N & N & N & O \\ \hline N & N & N & N & O \\ \hline N & N & N & N & N \\ \hline N & N & N & N & N \\ \hline N & N & N & N & N \\ \hline N & N & N & N & N \\ \hline N & N & N & N & N \\ \hline N & N & N & N & N \\ \hline N & N & N & N & N \\ \hline N & N & N & N & N \\ \hline N & N & N &$$

RN 651734-47-3 HCAPLUS

RN 651734-48-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-7-[[(2R)-2,3-dihydroxypropyl]amino]-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} \text{OH} & \text{H} & \text{N} & \text{N} & \text{O} \\ \hline \text{N} & \text{N} & \text{N} & \text{O} & \text{F} \\ \hline \text{OMe} & & \text{OMe} \\ \end{array}$$

RN 651734-49-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-ethyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[[2-(2-hydroxyethoxy)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 651734-50-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2-fluoro-3,5-dimethoxyphenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IT 651735-18-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidopyrimidinones as kinase inhibitors)

- RN 651735-18-1 HCAPLUS
- CN 1-Piperidinecarboxylic acid, 4-[7-amino-3-(2,6-difluoro-3,5-dimethoxyphenyl)-3,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L27 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:651919 HCAPLUS

DOCUMENT NUMBER:

140:16695

TITLE: Solid-phase synthesis of pyrimido[4,5-d]pyrimidine-

2,4(1H,3H)-diones

AUTHOR (S): Graveleau, Nadege; Masquelin, Thierry

CORPORATE SOURCE: Combinatorial & Parallel Chemistry, Basilea

Pharmaceutica Ltd., Basel, 4002, Switz.

SOURCE: Synthesis (2003), (11), 1739-1743

CODEN: SYNTBF; ISSN: 0039-7881

Georg Thieme Verlag PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:16695

The authors report a novel and versatile solid-phase synthesis of pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-diones starting from the polymer-bound Et 4-amino-2-sulfanylpyrimidine-5-carboxylate. The key step is based on the reaction of the support-bound pyrimidine with isocyanates, involving formation of a carbamate intermediate, followed by a base-catalyzed intramol. ring closure, to give polymer-bound 3-monosubstituted 1H-pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-diones. At this stage, subsequent treatment with alkyl halides led to 1,3-disubstituted 2H-pyrimido [4,5-d] pyrimidine-2,4(1H,3H)-dione intermediates, which after oxidation and cleavage with various amines gave 1,3-disubstituted 7-amino-2H-pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-diones in moderate yields and high purity.

ΙT 630394-21-7P 630394-23-9P 630394-24-0P

630394-25-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(solid-phase synthesis of pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-diones)

630394-21-7 HCAPLUS RN

Pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-dione, 1-(cyclopropylmethyl)-3-(2-CN fluorophenyl)-7-[[3-(4-morpholinyl)propyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN 630394-23-9 HCAPLUS

CN Benzoic acid, 3-[1-(3-cyanopropyl)-1,4-dihydro-7-[[3-(4-morpholinyl)propyl]amino]-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 630394-24-0 HCAPLUS

CN Benzoic acid, 3-[1-[(3-fluorophenyl)methyl]-1,4-dihydro-7-[[3-(4-morpholinyl)propyl]amino]-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 630394-25-1 HCAPLUS

CN Benzoic acid, 3-[1-[(4-cyanophenyl)methyl]-1,4-dihydro-7-[[3-(4-morpholinyl)propyl]amino]-2,4-dioxopyrimido[4,5-d]pyrimidin-3(2H)-yl]-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} CN \\ \hline \\ CH_2 \\ \hline \\ N \\ \hline \\ O \\ \end{array}$$

REFERENCE COUNT:

33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2001:300721 HCAPLUS 134:326540

DOCUMENT NUMBER: TITLE:

Preparation of alkylamino substituted bicyclic

nitrogen heterocycles for pharmaceutical use as

inhibitors of p38 protein kinase

INVENTOR (S):

Dunn, James Patrick; Fisher, Lawrence Emerson; Goldstein, David Michael; Harris, William; Hill, Christopher Huw; Smith, Ian Edward David; Welch,

Teresa Rosanne

PATENT ASSIGNEE(S):

F. Hoffmann-La Roche Ag, Switz.

SOURCE:

PCT Int. Appl., 177 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PAT | ΓENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | D. | ATE | |
|-----|------|-------|-----|-----|-----|------|------|-----------------|-----|-------|------|-------|------|-----|-----|------|-----|
| | | | | | | | | | | | | | | | | | |
| WO | 2001 | | | | | | | | | | | | | | | | |
| | W : | | | | ΑT, | | | | | | | | | | | | |
| | | DE, | DK, | ΕE, | ES, | FI, | GB, | GD, | GE, | GH, | GM, | HR, | HU, | ID, | ΙL, | IN, | IS, |
| | | JP, | ΚE, | KG, | ΚP, | KR, | KZ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, |
| | | MK, | MN, | MW, | MX, | NO, | NZ, | PL, | PT, | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, |
| | | | | | TT, | | | | | | | | | | | | |
| | | | RU, | | | | | | | | | | | | | | |
| | RW: | GH, | GM, | ΚE, | LS, | MW, | ΜZ, | SD, | SL, | SZ, | TZ, | UG, | ZW, | ΑT, | ΒE, | CH, | CY, |
| | | DE, | DK, | ES, | FI, | FR, | GB, | GR, | ΙE, | ΙΤ, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, |
| | | CF, | CG, | CI, | CM, | GA, | GN, | GW, | ML, | MR, | ΝE, | SN, | TD, | TG | | | |
| CA | | | | AA | | 2001 | 0426 | CA 2000-2388142 | | | | | | | | | |
| BR | 2000 | 0152 | 43 | | Α | | 2002 | 0716 |] | 3R 2 | 000- | 1524 | 3 | | 2 | 0001 | 013 |
| | 1228 | | | | | | | | | | | | | | | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | ΙE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL | | • | | | | | • |
| TR | 2002 | 0105 | 7 | | T2 | | 2002 | 0923 | • | TR 2 | 002- | 2002 | 0105 | 7 | 2 | 0001 | 013 |
| JР | 2003 | 5123′ | 78 | | T2 | : | 2003 | 0402 | į. | JP 20 | 001- | 5318 | 40 | | 2 | 0001 | 013 |
| NZ | 5181 | 19 | | | Α | : | 2004 | 0227 | 1 | NZ 2 | 000- | 5181 | 19 | | 2 | 0001 | 013 |

| AU 776250 | B2 | 20040902 | AU | 2000-77873 | | 20001013 |
|------------------------|----|----------|----|--------------|---|----------|
| US 6451804 | B1 | 20020917 | US | 2000-693337 | | 20001020 |
| ZA 2002002540 | Α | 20030630 | ZA | 2002-2540 | | 20020328 |
| NO 2002001781 | Α | 20020418 | NO | 2002-1781 | | 20020416 |
| PRIORITY APPLN. INFO.: | | | US | 1999-160803P | P | 19991021 |
| | | | US | 2000-213743P | P | 20000622 |
| | | | WO | 2000-EP10088 | W | 20001013 |

OTHER SOURCE(S):

MARPAT 134:326540

GI

Alkylamino-substituted dihydropyrimido[4,5-d]pyrimidinone derivs., such as I [R1 = H, alkyl, alkenyl, alkynyl, acyl, cycloalkyl, etc.; R2 = vinyl, alkyl, halogen, heteroalkyl; R3 = alkyl, heteroalkyl, cycloalkyl, heterocyclyl, etc.; R4 = H, alkyl, etc.; n = 0-3], were prepared for pharmaceutical use. The compds. are p38 inhibitors and may be used in the treatment of arthritis, Crohn's disease, irritable bowel syndrome, adult respiratory distress syndrome, chronic obstructive pulmonary disease, osteoporosis, or Alzheimer's disease. Thus, dihydropyrimido[4,5-d]pyrimidinone II (R = NHCMe2CH2OH, R3 = Me) was prepared via a substitution reaction of H2NCMe2CH2OH with sulfone II (R = SO2Me, R3 = Me) when combined and heated to 100-110° for 1 h. The prepared dihydropyrimido[4,5-d]pyrimidinone derivs. showed 50% p38 inhibitory activity at concns. < 10 μ M.

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IT 335651-19-9P 335651-20-2P 335651-24-6P 335651-30-4P 335651-49-5P 335651-50-8P 335651-53-1P 335651-55-3P 335651-56-4P 335651-57-5P 335651-58-6P 335651-61-1P 335651-77-9P 335651-88-2P 335651-89-3P 335651-99-3P 335651-97-3P 335651-98-4P 335651-99-5P 335651-97-3P 335652-06-7P 335652-11-4P 335652-12-5P 335652-13-6P 335652-14-7P 335652-16-9P 335652-18-1P 335652-22-7P 335652-24-9P 335652-26-1P 335652-30-7P 335652-32-9P 335652-36-3P 335652-39-6P 335652-40-9P 335652-41-0P RL: BAC (Biological activity or effector
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of alkylamino substituted pyrimidino[4,5-d]pyrimidines for pharmaceutical use as inhibitors of p38 protein kinase)

RN 335651-19-9 HCAPLUS CN Pyrimido[4,5-d]pyrim

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxy-1-methylethyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-20-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxypropyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-24-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxy-1,1-dimethylethyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-30-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1R,2S)-2-hydroxy-1-(hydroxymethyl)propyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-49-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-methyl-3-(2-methylphenyl)-7-(4-piperidinylamino)- (9CI) (CA INDEX NAME)

RN 335651-50-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-methyl-3-(2-methylphenyl)-7-[[1-(phenylmethyl)-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

RN 335651-53-1 HCAPLUS

CN 4-Piperidinamine, 1-(methylsulfonyl)-N-[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)

RN 335651-55-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[1-[(2R)-2,3-dihydroxypropyl]-4-piperidinyl]amino]-3,4-dihydro-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ &$$

RN 335651-56-4 HCAPLUS

CN 1-Piperidinepropanenitrile, 4-[[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 335651-57-5 HCAPLUS

CN 1-Piperidineacetonitrile, 4-[[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 335651-58-6 HCAPLUS

CN 1-Piperidineacetonitrile, 4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 335651-61-1 HCAPLUS

CN 1-Piperidinepropanoic acid, 4-[[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-C-CH}_2\text{-CH}_2 \\ \text{MeO-NH-NN-N} \\ \text{Me} \\ \text{Me} \\ \end{array}$$

RN 335651-77-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEXNAME)

Relative stereochemistry.

RN 335651-88-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[2-ethoxy-1-(ethoxymethyl)ethyl]-3,4-dihydro-7-[[(1R)-2-hydroxy-1-methylethyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-89-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-

[[(1S)-2-hydroxy-1-methylethyl]amino]-1-(4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-93-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-[2-(1-pyrrolidinyl)ethyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-94-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[2-(diethylamino)ethyl]-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-95-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[(2,3-dihydroxy-1,1-dimethylpropyl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-96-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-[2-(methylthio)ethyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-97-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[2-(dimethylamino)ethyl]-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-(9CI) (CA INDEX NAME)

RN 335651-98-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[3-(dimethylamino)-2,2-dimethylpropyl]-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-99-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-N,N-dimethyl-2-oxo-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-00-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(2,3-dihydroxy-1,1-dimethylpropyl)amino]-3,4-dihydro-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

RN 335652-06-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-11-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-methoxycyclohexyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-12-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[trans-4-(2-methoxyethoxy)cyclohexyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-13-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidîn-2(1H)-one, 7-[[trans-4-(acetyloxy)cyclohexyl]amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-14-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[trans-4-(2-propenyloxy)cyclohexyl]amino]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

$$H_2C$$

RN 335652-16-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)cyclohexyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

335652-18-1 HCAPLUS RN

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[[trans-4-[(2S)-2,3-dihydroxypropoxy]cyclohexyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN335652-22-7 HCAPLUS

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-CNmethyl-7-[(4-oxocyclohexyl)amino]- (9CI) (CA INDEX NAME)

RN 335652-24-9 HCAPLUS

Pyrimido [4,5-d] pyrimidin-2(1H) -one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[3-CN(hydroxymethyl)-3-methyl-1,5-dioxaspiro[5.5]undec-9-yl]amino]-1-methyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{O} & \text{NH} & \text{N} & \text{N} \\ \text{HO-CH}_2 & \text{O} & \text{NH} & \text{N} & \text{N} \\ \text{C1} & \text{C1} & \text{C1} & \text{C1} \\ \end{array}$$

RN 335652-26-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-30-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[4-(hydroxyimino)cyclohexyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335652-32-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-phenyl- (9CI) (CA INDEX NAME)

RN 335652-36-3 HCAPLUS

CN 1,3-Diazaspiro[4.5]decane-2,4-dione, 8-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 335652-39-6 HCAPLUS

CN Methanesulfonamide, N-[trans-4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]cyclohexyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-40-9 HCAPLUS

CN Sulfamide, N'-[trans-4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]cyclohexyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 335652-41-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(trans-4-aminocyclohexyl)amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} H & Me \\ N & N & N \\ \end{array}$$

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IT
     335651-18-8P 335651-21-3P 335651-22-4P
    335651-23-5P 335651-25-7P 335651-26-8P
    335651-27-9P 335651-28-0P 335651-29-1P
    335651-31-5P 335651-32-6P 335651-33-7P
    335651-34-8P 335651-36-0P 335651-37-1P
    335651-38-2P 335651-39-3P 335651-40-6P
    335651-41-7P 335651-42-8P 335651-43-9P
    335651-44-0P 335651-45-1P 335651-46-2P
    335651-47-3P 335651-48-4P 335651-52-0P
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    335651-75-7P 335651-76-8P 335651-78-0P
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    335652-80-7P 335652-81-8P 335652-82-9P
    335652-83-0P 335652-84-1P 335652-85-2P
    335652-86-3P 335652-87-4P 335652-88-5P
    335652-90-9P 335652-91-0P 335652-92-1P
    335652-93-2P 335652-94-3P 335652-95-4P
    335652-96-5P 335652-98-7P 335652-99-8P
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335653-00-4P 335653-01-5P 335653-02-6P 335653-03-7P 335653-04-8P 335653-05-9P 335653-22-0P 335653-23-1P 335653-24-2P 335653-37-7P 335653-38-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of alkylamino substituted pyrimidino[4,5-d]pyrimidines for pharmaceutical use as inhibitors of p38 protein kinase)

RN 335651-18-8 HCAPLUS

CN

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxyethyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{Me} \\ \hline \\ \text{HO-CH}_2\text{-CH}_2\text{-NH} & \text{N} & \text{N} \\ \hline \\ \text{N} & \text{N} & \text{N} \\ \hline \end{array}$$

RN 335651-21-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1S)-2-hydroxy-1-methylethyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-22-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{HO-CH}_2 & \text{Me} \\ \text{HO-CH}_2\text{-CH-NH} & \text{N} & \text{O} \\ \end{array}$$

RN 335651-23-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H) -one, 3-(2-chlorophenyl)-7-[(2,3-

dihydroxypropyl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OH} & \text{Me} \\ \text{HO-CH}_2\text{-CH-CH}_2\text{-NH} & \text{N} \\ \\ \text{N} & \text{N} \\ \end{array}$$

RN 335651-25-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)propyl]amino]-1-methyl-(9CI) (CA INDEX NAME)

RN 335651-26-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(3-hydroxybutyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OH} & \text{Me} \\ \text{Me-CH-CH}_2\text{-CH}_2\text{-NH} & \text{N} \\ \text{N} & \text{N} \end{array}$$

RN 335651-27-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxybutyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-28-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[2-hydroxy-1-(hydroxymethyl)-1-methylethyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-29-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[[(1R,2R)-2,3-dihydroxy-1-methylpropyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-31-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-32-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)-2-methylpropyl]amino]-1-methyl-(9CI) (CA INDEX NAME)

RN 335651-33-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)butyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-34-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-36-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)pentyl]amino]-1-methyl-(9CI) (CA INDEX NAME)

RN 335651-37-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1R,2S)-2-hydroxycyclohexyl]amino]-1-methyl-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-38-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1R,2R)-2-hydroxycyclohexyl]amino]-1-methyl-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-39-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)cyclopentyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-40-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1R)-1-(hydroxymethyl)-3-methylbutyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-41-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1S)-1-(hydroxymethyl)-3-methylbutyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-42-8 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[2-(1-piperidinyl)ethyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \text{N} \\ & \text{CH}_2 - \text{CH}_2 - \text{NH} \\ & \text{N} \\ & \text{N} \\ & \text{C1} \\ \end{array}$$

RN 335651-43-9 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[3-(1-piperidinyl)propyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
N & (CH_2)_3 - NH & N & N \\
N & N & N
\end{array}$$

RN 335651-44-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[2-(4-morpholinyl)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 335651-45-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[3-(4-morpholinyl)propyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & \text{Me} \\
 & \text{N} \\
 & \text{C1}
\end{array}$$

RN 335651-46-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[(tetrahydro-1,1-dioxido-3-thienyl)amino]- (9CI) (CA INDEX NAME)

RN -335651-47-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[2-(2-oxo-1-imidazolidinyl)ethyl]amino]- (9CI) (CA INDEX NAME)

RN 335651-48-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me \\ \hline \\ N \\ \hline \\ C1 \\ \end{array}$$

RN 335651-52-0 HCAPLUS

CN 1-Piperidineacetamide, 4-[[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 335651-54-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[[1-(2-hydroxyethyl)-4-piperidinyl]amino]-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

RN 335651-70-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(3-amino-2,2-dimethylpropyl)amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-71-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(3-amino-2,2-dimethylpropyl)amino]-3,4-dihydro-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

RN 335651-72-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[[2-(dimethylamino)ethyl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me}_2\text{N-CH}_2\text{-CH}_2\text{-NH} \\ \text{N} \\ \text{N} \\ \text{C1} \end{array}$$

RN 335651-73-5 HCAPLUS

CN Acetamide, N-[2-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]ethyl]- (9CI) (CA INDEX NAME)

RN 335651-74-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(4-aminocyclohexyl)amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-75-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)pentyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-76-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(3-amino-2-hydroxypropyl)amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OH} & \text{Me} \\ \text{H}_2\text{N}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{NH} & \text{N} \\ \text{N} & \text{N} \\ \end{array}$$

RN 335651-78-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-79-1 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(3-chlorophenyl)-3,4-dihydro-7-[(2-hydroxy-1,1-dimethylethyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 335651-80-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3,4-dihydro-7-[(2-hydroxy-1,1-dimethylethyl)amino]-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{Me} \\ | & \text{Me} \\ | & \text{N} \\ \text{Me} \\ \text{N} & \text{Me} \\ \end{array}$$

RN 335651-81-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3,4-dihydro-7-[(2-hydroxy-1,1-dimethylethyl)amino]-1-methyl-3-(3-methylphenyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{Me} & \text{Me} \\ \text{HO-CH}_2 - \text{C-NH} & \text{N} & \text{N} \\ \text{Me} & \text{N} & \text{N} & \text{Me} \\ \end{array}$$

RN 335651-82-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)-2-methylpropyl]amino]-1-methyl-(9CI) (CA INDEX NAME)

Ext. 22524

RN 335651-83-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[[1-(hydroxymethyl)-2-methylpropyl]amino]-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

RN 335651-84-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluorophenyl)-3,4-dihydro-7-[[(1R,2S)-2-hydroxycyclohexyl]amino]-1-methyl-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-85-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[[(1R,2S)-2-hydroxycyclohexyl]amino]-1-methyl-3-(2-methylphenyl)-, rel- (9CI) (CA INDEX NAME)

RN 335651-86-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-fluorophenyl)-3,4-dihydro-7-[[(1R,2R)-2-hydroxycyclohexyl]amino]-1-methyl-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-87-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[[(1R,2R)-2-hydroxycyclohexyl]amino]-1-methyl-3-(2-methylphenyl)-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335651-90-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[(1R,2R)-2,3-dihydroxy-1-methylpropyl]amino]-3,4-dihydro-1-methyl-3-(2-methylphenyl)- (9CI) (CAINDEX NAME)

Absolute stereochemistry.

RN 335651-91-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[(1S,2S)-2-aminocyclohexyl]amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335651-92-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[(1R,2R)-2-aminocyclohexyl]amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335652-02-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1S,2S)-2-hydroxy-1-(hydroxymethyl)propyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335652-04-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-(1-methyl-3-piperidinyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-08-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-2-oxo-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-20-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-(1,4-dioxaspiro[4.5]dec-8-ylamino)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 335652-28-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-2-oxo-, methyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-34-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-2-oxo-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-37-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetonitrile, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-2-oxo-(9CI) (CA INDEX NAME)

RN 335652-38-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-42-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-(2,2,2-trifluoroethyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335652-71-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxy-1,1-dimethylethyl)amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-72-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[(1R,2S)-2-hydroxy-1-(hydroxymethyl)propyl]amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 335652-73-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxy-1-methylethyl)amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 335652-74-9 HCAPLUS

Ext. 22524

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(2-hydroxypropyl)amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-75-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[(2,3-dihydroxy-1,1-dimethylpropyl)amino]-3,4-dihydro-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-76-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[1-(hydroxymethyl)cyclohexyl]amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-77-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[3-(hydroxymethyl)-3-methyl-1,5-dioxaspiro[5.5]undec-9-yl]amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

HCl

RN 335652-78-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[(4-oxocyclohexyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-79-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[4-(hydroxyimino)cyclohexyl]amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-80-7 HCAPLUS

CN 1,3-Diazaspiro[4.5]decane-2,4-dione, 8-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 335652-81-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-methyl-7-[[trans-4-(2-propenyloxy)cyclohexyl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

RN 335652-82-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-methoxycyclohexyl)amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-83-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[[trans-4-(2-methoxyethoxy)cyclohexyl]amino]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 335652-84-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[trans-4-(acetyloxy)cyclohexyl]amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-85-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[[trans-4-[(2S)-2,3-dihydroxypropoxy]cyclohexyl]amino]-3,4-dihydro-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 335652-86-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(trans-4-aminocyclohexyl)amino]-3-(2-chlorophenyl)-3,4-dihydro-1-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 335652-87-4 HCAPLUS

CN Methanesulfonamide, N-[trans-4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]cyclohexyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 335652-88-5 HCAPLUS

CN Sulfamide, N'-[trans-4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]cyclohexyl]-N,N-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-90-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-methyl-3-(2-methylphenyl)-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 335652-91-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(2,3-dihydroxy-1,1-dimethylpropyl)amino]-3,4-dihydro-1-methyl-3-(2-methylphenyl)-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-92-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-1-methyl-3-(2-methylphenyl)-7-[[1-(phenylmethyl)-4-piperidinyl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-93-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[1-[(2R)-2,3-dihydroxypropyl]-4-piperidinyl]amino]-3,4-dihydro-1-methyl-3-(2-methylphenyl)-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ &$$

● HCl

RN 335652-94-3 HCAPLUS

CN 1-Piperidinepropanenitrile, 4-[[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-95-4 HCAPLUS

CN 1-Piperidineacetonitrile, 4-[[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-96-5 HCAPLUS

CN 1-Piperidinepropanoic acid, 4-[[5,6,7,8-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335652-98-7 HCAPLUS

CN 4-Piperidinamine, 1-(methylsulfonyl)-N-[5,6,7,8-tetrahydro-8-methyl-6-(2-

methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]-, monohydrochloride
(9CI) (CA INDEX NAME)

HCl

RN 335652-99-8 HCAPLUS

CN 1-Piperidineacetonitrile, 4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335653-00-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-[2-(1-pyrrolidinyl)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HC1

RN 335653-01-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[2-(diethylamino)ethyl]-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 335653-02-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[2-(dimethylamino)ethyl]-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335653-03-7 HCAPLUS CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-

[[(1S)-2-hydroxy-1-methylethyl]amino]-1-(4-piperidinyl)-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 335653-04-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[2-ethoxy-1-(ethoxymethyl)ethyl]-3,4-dihydro-7-[[(1R)-2-hydroxy-1-methylethyl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

Ext. 22524

Absolute stereochemistry.

● HCl

RN 335653-05-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetamide, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-N,N-dimethyl-2-oxo-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 335653-22-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-[2-(methylthio)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 335653-23-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[3-(dimethylamino)-2,2-dimethylpropyl]-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 335653-24-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-(1-methyl-4-piperidinyl)-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

.RN 335653-37-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-(phenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

HCl

RN 335653-38-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(trans-4-hydroxycyclohexyl)amino]-1-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

IT 335653-41-3P 335653-74-2P 335653-77-5P 335653-78-6P 335653-79-7P 335653-80-0P 335653-84-4P 335653-85-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of alkylamino substituted pyrimidino[4,5-d]pyrimidines for pharmaceutical use as inhibitors of p38 protein kinase)

RN 335653-41-3 HCAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[1,5,6,7-tetrahydro-8-methyl-6-(2-methylphenyl)-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

RN 335653-74-2 HCAPLUS

CN Sulfamide, N'-[trans-4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-7-oxo-8-[[2-(trimethylsilyl)ethoxy]methyl]pyrimido[4,5-d]pyrimidin-2-yl]amino]cyclohexyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 335653-77-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[[trans-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexyl]amino]-3,4-dihydro-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335653-78-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetonitrile, 3-(2-chlorophenyl)-7-[[trans-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexyl]amino]-3,4-dihydro-2-oxo-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335653-79-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3-(2-chlorophenyl)-7-[[trans-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexyl]amino]-3,4-dihydro-2-oxo-, methyl ester (9CI) (CA INDEX NAME)

RN 335653-80-0 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[[trans-4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexyl]amino]-3,4-dihydro-1-[2-[[tris(1-methylethyl)silyl]oxy]ethyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335653-84-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[(trans-4-aminocyclohexyl)amino]-3-(2-chlorophenyl)-3,4-dihydro-1-[[2-(trimethylsilyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 335653-85-5 HCAPLUS

CN Methanesulfonamide, N-[trans-4-[[6-(2-chlorophenyl)-5,6,7,8-tetrahydro-7-oxo-8-[[2-(trimethylsilyl)ethoxy]methyl]pyrimido[4,5-d]pyrimidin-2-yl]amino]cyclohexyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER:

2001:300720 HCAPLUS

DOCUMENT NUMBER:

134:311223

TITLE:

Preparation of alkylamino substituted bicyclic nitrogen heterocycles for pharmaceutical use as

inhibitors of p38 protein kinase

INVENTOR(S):

Dunn, James Patrick; Goldstein, David Michael; Harris,

William; Smith, Ian Edward David; Welch, Teresa

PATENT ASSIGNEE(S):

F. Hoffmann-La Roche Ag, Switz.

SOURCE:

PCT Int. Appl., 59 pp.

DOCUMENT TYPE:

CODEN: PIXXD2 Patent

English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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|--------------------------------------|-----------|------|-----|------|-----|------------------------|------|-------------------|---------------|-----------------|------|----------------|------|------|-----|-------|-------|-----|
| | WO | | | | | A1 | | | | WO 2000-EP10077 | | | | | | | | |
| | | W: | | | | | | AZ, | | | | | | | | | | |
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| | | RW: | | | | | | MZ, | | | | | | | | | | |
| | | | | | | | | GB, GN, | | | | | | | | SE, | BF, | BJ, |
| | CA | 2388 | | | | | | | | - | | | • | | | 2 | 0001 | 013 |
| | | | | | | 20020716 BR 2000-14973 | | | | | | | | | | | | |
| | | | | | | | | TR 2002-200201058 | | | | | | | | | | |
| | ΕP | 1226 | | | | | | 2002 | | | | | | | | | | |
| | | к: | | | | | | ES, RO, | | | | IT, | ыL, | LU, | ΝL, | SE, | MC, | PT, |
| | JР | 2003 | | - | | | | 2003 | • | • | | 001- | 5318 | 39 | | 21 | 0001 | 113 |
| | AU 776695 | | | | | | | | AU 2001-11375 | | | | | | | | | |
| | | 6642 | | | | | | 2003 | 1104 | | US 2 | 000- | 6933 | 64 | | 2 | 0001 | 020 |
| | | 2002 | | | | | | 2003 | | | | | | | | _ | 00204 | |
| NO 2002001783 PRIORITY APPLN. INFO.: | | | | | A | | 2002 | 0416 | | | | | | | | 00204 | | |
| FRIO | (11) | AFP. | N⊥⊔ | INLO | . : | | | | | | | 999-: 000-: | | | | | 00006 | |

WO 2000-EP10077

W 20001013

OTHER SOURCE(S): GI

MARPAT 134:311223

Alkylamino-substituted dihydropyrimido[4,5-d]pyrimidinone derivs., such as AB I [R1 = H, alkyl, alkenyl, alkynyl, acyl, cycloalkyl, etc.; R2 = vinyl, alkyl, halogen, heteroalkyl; R3 = alkyl, heteroalkyl, cycloalkyl, heterocyclyl, etc.; n = 0-3], were prepared for pharmaceutical use as inhibitors of p38 protein kinase for the treatment of conditions such as arthritis, Crohn's disease, obstructive pulmonary disease, or irritable bowel syndrome.. Thus, dihydropyrimido[4,5-d]pyrimidinone II (R = NHCHMe2, R3 = CH2CO2H) was prepared via a substitution reaction of H2NCHMe2 with sulfone II (R = SO2CH2Ph, R3 = CH2CO2Et) when combined and heated to 90-100° for 1 h. The prepared dihydropyrimido[4,5-d]pyrimidinone derivs. showed p38 50% inhibitory activity at concns. < 10 µM.

IT 335318-15-5P 335318-19-9P 335318-22-4P 335318-39-3P 335318-40-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of alkylamino substituted pyrimidino[4,5-d]pyrimidines for pharmaceutical use as inhibitors of p38 protein kinase)

RN 335318-15-5 HCAPLUS

Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-(2-CN hydroxyethyl) -7-[(1-methylethyl)amino] - (9CI) (CA INDEX NAME)

RN 335318-19-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(1methylethyl)amino]-1-[2-(methylsulfonyl)ethyl]- (9CI) (CA INDEX NAME)

RN 335318-22-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3-(2-chlorophenyl)-3,4-dihydro-7-[(1-methylethyl)amino]-2-oxo-, ethyl ester (9CI) (CA INDEX NAME)

RN 335318-39-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(1-methylethyl)amino]-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 335318-40-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-(2-methoxyethyl)-7-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)

IT 335318-09-7P 335318-10-0P 335318-11-1P 335318-12-2P 335318-16-6P 335318-17-7P 335318-18-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of alkylamino substituted pyrimidino[4,5-d]pyrimidines for pharmaceutical use as inhibitors of p38 protein kinase)

RN 335318-09-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-1(2H)-acetic acid, 3-(2-chlorophenyl)-3,4-dihydro-7-[(1-methylethyl)amino]-2-oxo-(9CI) (CA INDEX NAME)

RN 335318-10-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-(2methoxyethyl)-7-[(1-methylethyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335318-11-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(1-methylethyl)amino]-1-[2-(methylsulfonyl)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 335318-12-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-1-(2-hydroxyethyl)-7-[(1-methylethyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 335318-16-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[(2R)-2,3-dihydroxypropyl]-3,4-dihydro-7-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335318-17-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[(2S)-2,3-dihydroxypropyl]-3,4-dihydro-7-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 335318-18-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(1-methylethyl)amino]-1-[2-(1-piperidinyl)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

IT 335318-27-9P 335318-33-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of alkylamino substituted pyrimidino[4,5-d]pyrimidines for pharmaceutical use as inhibitors of p38 protein kinase)

RN 335318-27-9 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-3,4-dihydro-7-[(1-methylethyl)amino]-1-[2-[[tris(1-methylethyl)silyl]oxy]ethyl]- (9CI) (CA INDEX NAME)

RN 335318-33-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-1-[[(4R)-2,2-dimethyl-1,3-dioxolan-4-yl]methyl]-3,4-dihydro-7-[(1-methylethyl)amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

4

ACCESSION NUMBER:

2000:291041 HCAPLUS

DOCUMENT NUMBER:

132:308352

TITLE:

Preparation of pyrimidopyrimidinones as T-cell

tyrosine kinase inhibitors

INVENTOR(S):

Harris, William; Hill, Christopher Huw; Smith, Ian

Edward David

PATENT ASSIGNEE(S):

F. Hoffmann-La Roche A.-G., Switz.

SOURCE:

PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE | | |
|---------------|--------------------|------------------------|---------------|--|--|
| | | | | | |
| WO 2000024744 | A1 20000504 | WO 1999-EP7675 | 19991013 | | |
| W: AE, AL, A | 1, AT, AU, AZ, BA, | BB, BG, BR, BY, CA, CH | , CN, CU, CZ, | | |
| | | GE, GH, GM, HR, HU, ID | | | |
| JP, KE, K | G, KP, KR, KZ, LC, | LK, LR, LS, LT, LU, LV | , MA, MD, MG, | | |
| MK, MN, M | N, MX, NO, NZ, PL, | PT, RO, RU, SD, SE, SG | , SI, SK, SL, | | |
| TJ, TM, T | R, TT, UA, UG, UZ, | VN, YU, ZA, ZW, AM, AZ | , BY, KG, KZ, | | |
| MD, RU, T | J, TM | | | | |

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RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                                             CA 1999-2347474
                                                                     19991013
     BR 9914677
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                                             BR 1999-14677
                                                                     19991013
     EP 1123295
                                 20010816
                                             EP 1999-953796
                                                                     19991013
                          A1
     EP 1123295
                          B1
                                 20040929
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             IE, SI, LT, LV, FI, RO
     TR 200101102
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                                             TR 2001-200101102
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     HK 1041483
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                                 20041224
                                             HK 2002-103084
                                                                     20020424
PRIORITY APPLN. INFO.:
                                             GB 1998-23277
                                                                 A 19981023
                                             GB 1999-20044
                                                                 A 19990824
                                             WO 1999-EP7675
                                                                 W
                                                                    19991013
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OTHER SOURCE(S):

MARPAT 132:308352

GΙ

AB Title compds. [I; R1 = NH2, alkylamino, (hetero)aryl(alkyl)amino; R2 = alkyl (hetero)aryl(alkyl); R3 = H, alkyl, (hetero)aryl(alkyl), cycloalkenyl] were prepared Thus, Et 4-chloro-2-methylthiopyrimidine-5carboxylate was aminated by MeNH2 and the product converted to the aldehyde which was condensed with 2,6-Cl2C6H3NH2 to give 2,6-Cl2C6H3NHCH2ZNHMe (Z = 2-methylthiopyrimidine-5,4-diyl). The latter was cyclocondensed with COCl2 and the the product oxidized to give I (R2 = 2,6-C12C6H3NHCH2, R3 = Me)(II; R1 = SO2Me) which was aminated by 4-(H2N)C6H4OCH2CH2NEt2 (preparation given) to give II [R1 = 4-(Et2NCH2CH2O)C6H4NH]. Data for biol. activity of I were given. 266312-86-1P 266312-87-2P 266312-88-3P 266312-93-0P 266312-94-1P 266312-95-2P 266312-97-4P 266312-98-5P 266312-99-6P 266313-00-2P 266313-01-3P 266313-02-4P 266313-03-5P 266313-04-6P 266313-05-7P 266313-06-8P 266313-07-9P 266313-08-0P 266313-09-1P 266313-10-4P 266313-11-5P 266313-12-6P 266313-13-7P 266313-14-8P 266313-15-9P 266313-17-1P 266313-18-2P 266313-19-3P 266313-20-6P 266313-21-7P 266313-22-8P 266313-23-9P 266313-24-0P 266313-25-1P 266313-27-3P 266313-29-5P '

266313-30-8P 266313-31-9P 266313-32-0P

266313-33-1P 266313-34-2P 266313-36-4P 266313-37-5P 266313-38-6P 266313-39-7P 266313-40-0P 266313-41-1P 266313-42-2P 266313-43-3P 266313-44-4P 266313-45-5P 266313-46-6P 266313-47-7P 266313-48-8P 266313-52-4P 266313-50-2P 266313-51-3P 266313-55-7P 266313-56-8P 266313-57-9P 266313-58-0P 266313-59-1P 266313-60-4P 266313-61-5P 266313-62-6P 266313-63-7P 266313-67-1P 266313-65-9P 266313-69-3P 266313-70-6P 266313-71-7P 266313-73-9P 266313-74-0P 266313-75-1P 266313-76-2P 266313-77-3P 266313-77-3P 266313-78-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidopyrimidinones as T-cell tyrosine kinase inhibitors) 266312-86-1 HCAPLUS

RN 266312-86-1 HCAPLUS
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266312-87-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266312-88-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a mino]-3,4-dihydro-1-methyl-3-phenyl- (9CI) (CA INDEX NAME)

RN 266312-93-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-phenyl- (9CI) (CA INDEX NAME)

RN 266312-94-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 266312-95-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 266312-97-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-(3-pyridinylmethyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 266312-96-3 CMF C30 H31 Cl2 N7 O2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 266312-98-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-methyl-7-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

RN 266312-99-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[(4-fluorophenyl) amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 266313-00-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-01-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-7-[(4-methoxyphenyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-02-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(dimethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 266313-03-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-7-[[4-(2-hydroxyethyl) phenyl] amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-04-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-methyl-7-[(2-phenylethyl)amino]- (9CI) (CA INDEX NAME)

RN 266313-05-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[(2,4-dimethoxyphenyl)methyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-06-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-amino-3-(2,6-dichlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-07-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-(cyclohexylamino)-3-(2,6-

dichlorophenyl)-3,4-dihydro-1-phenyl- (9CI) (CA INDEX NAME)

RN 266313-08-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-7-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)

RN 266313-09-1 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-phenyl-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 266313-10-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[(cyclohexylmethyl)amino]-3-(2,6-dichlorophenyl)-3,4-dihydro-1-phenyl- (9CI) (CA INDEX NAME)

RN 266313-11-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-7-(1-naphthalenylamino)-1-phenyl- (9CI) (CA INDEX NAME)

RN 266313-12-6 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[[[4-(aminomethyl) phenyl] methyl] amin o]-3-(2,6-dichlorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-13-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[2-(4-aminophenyl)ethyl]amino]-3-(2,6-dichlorophenyl)-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 266313-14-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[[4-[2-(diethylamino)ethoxy]phenyl]methyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-15-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a mino]-3-(2,6-dimethylphenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

$$\mathsf{Et_2N-CH_2-CH_2-O} \\ \mathsf{NH-N} \\ \mathsf{NM-N} \\ \mathsf{NM-N} \\ \mathsf{Me} \\$$

RN 266313-17-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-(1-methylethyl)- (9CI)-(CA INDEX NAME)

RN 266313-18-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a mino]-3,4-dihydro-1-methyl-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

RN 266313-19-3 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-

phenyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-20-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-7-[[(4-methoxyphenyl)methyl]amino]-1-phenyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{MeO} & \text{Ph} \\ \hline \\ \text{CH}_2 - \text{NH} & \text{N} & \text{N} & \text{O} & \text{Cl} \\ \hline \\ \text{Cl} & & & \\ \end{array}$$

RN 266313-21-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-amino-3-(2,6-dichlorophenyl)-3,4-dihydro-1-phenyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} \\ & \\ & \\ & \\ N \end{array}$$

RN 266313-22-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a mino]-3-(2,6-difluorophenyl)-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-23-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

$$\mathsf{Et}_2\mathsf{N}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{O}$$

$$\mathsf{NH}-\mathsf{N}$$

$$\mathsf{N}$$

$$\mathsf{N}$$

$$\mathsf{C1}$$

RN 266313-24-0 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2,6-dichlorophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 266313-25-1 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl) phenyl]-3-(2,6-dichlorophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-27-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chloro-6-methylphenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-29-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-(2-cyclohexen-1-yl)-3-(2,6-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\mathsf{Et_2N-CH_2-CH_2-O} \\ \mathsf{NH-N} \\ \mathsf{N} \\ \mathsf{N} \\ \mathsf{C1} \\ \mathsf{C1} \\ \mathsf{C2} \\ \mathsf{C1} \\ \mathsf{C2} \\ \mathsf{C3} \\ \mathsf{C4} \\ \mathsf{C2} \\ \mathsf{C4} \\ \mathsf{C5} \\ \mathsf{C6} \\ \mathsf{C6}$$

RN 266313-30-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-31-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,5-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 266313-32-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3-bromophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

$$\mathsf{Et}_2\mathsf{N}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{O}$$

RN 266313-33-1 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3,4-dihydro-3-(2-methoxyphenyl)-1-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-34-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3,4-dihydro-3-(2-hydroxyphenyl)-1-methyl-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-36-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-amino-3-(2-bromophenyl)-3,4-dihydro-1-[3-(2-hydroxyethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 266313-37-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl) phenyl]-3-(2-bromophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-38-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl)phenyl]-3-(2,6-dimethylphenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-39-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl)phenyl]-3-[2-chloro-4-(trifluoromethyl)phenyl]-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-40-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chloro-6-methylphenyl)-3,4-dihydro-1-[3-(2-hydroxyethyl)phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-41-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl)phenyl]-3-(2-chloro-6-methylphenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-42-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl)phenyl]-3-(2,5-dichlorophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-43-3 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-7-[[4-[2-(diethylamino)ethoxy] phenyl] amino]-3,4-dihydro-1-[3-(2-hydroxyethyl) phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{HO-CH}_2\text{-CH}_2\\ \text{Et}_2\text{N-CH}_2\text{-CH}_2\text{-O}\\ \text{NH-N}\\ \text{N}\\ \text{Br} \end{array}$$

.RN 266313-44-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-1-[3-(2-hydroxy-1,1-dimethylethyl)phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-45-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(2-amino-1,1-dimethylethyl)phenyl]-3-(2-bromophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-46-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl)phenyl]-3-(2-bromophenyl)-3,4-dihydro-7-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{MeO} \\ & \text{NH} \\ & \text{NH$$

RN 266313-47-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl) phenyl]-3-(2-bromophenyl)-3,4-dihydro-7-[(4-hydroxyphenyl) amino]- (9CI) (CA INDEX NAME)

RN 266313-48-8 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[3-(aminomethyl) phenyl]-3-(2-bromophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-49-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-1-[3-(hydroxymethyl)phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-50-2 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-1-[4-(hydroxymethyl)phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-51-3 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[4-(aminomethyl) phenyl]-3-(2-bromophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-52-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-1-(1-naphthalenyl)-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-53-5 HCAPLUS

CN Benzoic acid, 3-[[3-(2-bromophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]methyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 266313-54-6 HCAPLUS

CN Benzoic acid, 3-[[3-(2-bromophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]methyl]- (9CI) (CA INDEX NAME)

RN 266313-55-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[(4-ethoxyphenyl)amino]-3,4-dihydro-1-phenyl- (9CI) (CA INDEX NAME)

RN 266313-56-8 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-[3-(2-hydroxyethyl) phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-57-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-[3-[2-(methylamino)ethyl]phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-58-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-1-[3-[2-(dimethylamino)ethyl]phenyl]-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-59-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-3,4-dihydro-1-[3-(2-hydroxyethyl)phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-60-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl) phenyl]-3-(2,4-dichlorophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-61-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-3,4-dihydro-1-[3-[2-(methylamino)ethyl]phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-62-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-1-[3-[2-(dimethylamino)ethyl]phenyl]-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-63-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-1-(cyclohexylmethyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-64-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[4-(2-aminoethyl)phenyl]-3-(2,4-dichlorophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-65-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-3,4-dihydro-1-[4-(hydroxymethyl)phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-66-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a mino]-3,4-dihydro-1-methyl-3-(2,4,6-trichlorophenyl)- (9CI) (CA INDEX NAME)

RN 266313-67-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-[3-(2-hydroxyethyl)phenyl]- (9CI) (CA INDEX NAME)

$$\mathsf{Et}_2\mathsf{N}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{O}$$

RN 266313-68-2 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 1-[3-(2-aminoethyl) phenyl]-3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy] phenyl] amino]-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{H}_2\text{N}-\text{CH}_2-\text{CH}_2\\ \text{Et}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{O}\\ \text{NH} \\ \text{N} \end{array}$$

RN 266313-69-3 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy] phenyl] amino]-1-[3-[2-(dimethylamino)ethyl] phenyl]-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 266313-70-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-phenyl- (9CI) (CA INDEX NAME)

$$\mathsf{Et}_2\mathsf{N}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{O}$$

RN 266313-71-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(2-amino-2-methylpropyl)phenyl]-3-(2,6-dichlorophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-73-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-[1-(aminomethyl)-1-ethylpropyl]phenyl]-3-(2,6-dichlorophenyl)-3,4-dihydro-7-(phenylamino)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 266313-72-8 CMF C30 H30 Cl2 N6 O

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 266313-74-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-[3-(3-aminopropyl)phenyl]-3-(2,6-dichlorophenyl)-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-75-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-1-[3-[2-(diethylamino)ethyl]phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-76-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-3,4-dihydro-1-[3-[2-(4-morpholinyl)ethyl]phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266313-77-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-3,4-dihydro-7-(phenylamino)-1-[3-[2-(1-piperazinyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

RN 266313-78-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[(2-furanylmethyl)amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
\text{Me} \\
\downarrow \\
\text{CH}_2-\text{NH} \\
\downarrow \\
\text{N} \\
\text{N} \\
\text{C1} \\
\end{array}$$

IT 266314-05-0P 266314-38-9P 266314-39-0P 266314-40-3P 266314-45-8P 266314-46-9P 266314-47-0P 266314-48-1P 266314-49-2P 266314-51-6P 266314-62-9P 266314-63-0P 266314-71-0P 266314-78-7P 266314-83-4P 266314-84-5P 266314-86-7P 266314-91-4P 266314-92-5P 266314-93-6P 266315-34-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidopyrimidinones as T-cell tyrosine kinase inhibitors) 266314-05-0 HCAPLUS

CN Benzeneacetic acid, 4-[[6-(2,6-dichlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

RN 266314-38-9 HCAPLUS

RN

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2-bromophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 266314-39-0 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2,6-dimethylphenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl}ethyl]- (9CI) (CA INDEX NAME)

RN 266314-40-3 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-[2-chloro-4-(trifluoromethyl)phenyl]-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 266314-45-8 HCAPLUS

CN Pyrimido[4,5-b]pyrimidin-2(1H)-one, 3-(2-chloro-6-methylphenyl)-1-[3-[2-[(1,1-dimethylethyl)diphenylsilyl]oxy]ethyl]phenyl]-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

Ext. 22524

RN 266314-46-9 HCAPLUS

CN Pyrimido[4,5-b]pyrimidin-2(1H)-one, 3-(2-chloro-6-methylphenyl)-3,4-dihydro-1-[3-[2-[(methylsulfonyl)oxy]ethyl]phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} 0 \\ \text{Me-}S-\text{O-}CH_2-\text{CH}_2 \\ 0 \\ \end{array}$$

RN 266314-47-0 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2-chloro-6-methylphenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 266314-48-1 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2,5-dichlorophenyl)-3,4-dihydro-2-

oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI)
(CA INDEX NAME)

RN 266314-49-2 HCAPLUS

CN Pyrimido [4,5-b] pyrimidin-2(1H)-one, 3-(2-bromophenyl)-1-[3-[2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1,1-dimethylethyl] phenyl]-3,4-dihydro-7-(phenylamino)- (9CI) (CA INDEX NAME)

RN 266314-51-6 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2-bromophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]-2-methylpropyl]-(9CI) (CA INDEX NAME)

RN 266314-62-9 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[3-[3-(2-bromophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]methyl]- (9CI) (CA INDEX NAME)

RN 266314-63-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-bromophenyl)-3,4-dihydro-7-(phenylamino)-1-[3-[[(tetrahydro-2H-pyran-2-yl)oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)

RN 266314-71-0 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[[4-[3-(2-bromophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]methyl]- (9CI) (CA INDEX NAME)

RN 266314-78-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-1-[3-[2-[[(1,1-dimethylethyl)diphenylsilyl]oxy]ethyl]phenyl]-3,4-dihydro-7-(phenylamino)-(9CI) (CA INDEX NAME)

RN 266314-79-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-3,4-dihydro-1-[3-[2-[(methylsulfonyl)oxy]ethyl]phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

$$Me - S - O - CH_2 - CH_2$$

$$O$$

$$PhNH$$

$$N$$

$$N$$

$$O$$

$$C1$$

RN 266314-83-4 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2,4-dichlorophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 266314-84-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-3,4-dihydro-1-[3-[2-[(methylsulfonyl)oxy]ethyl]phenyl]-7-(phenylamino)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ Me-S-O-CH_2-CH_2 \\ O \end{array}$$

RN 266314-86-7 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[4-[3-(2,4-dichlorophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 266314-91-4 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy] phenyl] amino]-1-[3-[2-[[(1,1-dimethylethyl)diphenylsilyl]oxy] ethyl] phenyl]-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \text{Ph} \\ & & & \\ & & \text{CH}_2-\text{CH}_2-\text{O}-\text{Si-Bu-t} \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$$

RN 266314-92-5 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy] phenyl] amino]-3,4-dihydro-1-[3-[2-[(methylsulfonyl)oxy]ethyl] phenyl]- (9CI) (CA INDEX NAME)

Ext. 22524

$$\begin{array}{c|c} & & & \\ &$$

RN 266314-93-6 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[3-[3-(2,4-dichlorophenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3,4-dihydro-2-oxopyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 266315-34-8 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[3-[3-[3-(2,6-dichlorophenyl)-3,4-dihydro-2-oxo-7-(phenylamino)pyrimido[4,5-d]pyrimidin-1(2H)-yl]phenyl]propyl]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

3

L27 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1999:764041 HCAPLUS

DOCUMENT NUMBER:

132:22971

TITLE:

Preparation of oxopyrido- and -pyrimidopyrimidines as

cellular proliferation inhibitors

INVENTOR (S):

Dobrusin, Ellen Myra; Hamby, James Marino; Kramer, James Bernard; Schroeder, Mel Conrad; Showalter,

Howard Daniel Hollis; Toogood, Peter;

Trumpp-Kallmeyer, Susanne A.

PATENT ASSIGNEE(S):

Warner-Lambert Co., USA

SOURCE:

PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PAT | CENT : | NO. | | | KIND | | DATE | | APPLICATION NO. | | | | | | DATE | | | |
|------------------------|----------------------|-------------------------------|-----|-----|------------|------------------|----------------|-------------------------------------|----------|-----------------------------|--|-----------------------------|-------------|-----|----------|----------|----------|-----|--|
| | | 0.0061444 | | | | | 7.0 | | 10001202 | | | | | | | 10000510 | | | |
| | | 9961444 | | | | | | | | WO 1999-US10187 | | | | | | 19990510 | | | |
| | WO | | | | | | | , BG, | | | CN | CII | C7 | רם | CD | CE | uр | யா | |
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| | | RW: | GH, | GM, | KE, | LS, | MW | SD, | SL, | SZ, | UG, | , ZW, | AT, | BE, | CH, | CY | DE, | DK, | |
| · · | | | | | | | | IE, | | | | | | | | | | | |
| : | | | CI, | CM, | GA, | GN, | GW, | ML, | MR, | NE, | SN | TD, | TG | | | | • | - | |
| | CA | 2329 | 703 | | | AA | | 1999 | 1202 | CA 1999-2329703 | | | | | | 19990510 | | | |
| | | | | | | A1 199 | | | 1213 | A | AU 1999-40734 | | | | | 19990510 | | | |
| | | 7638 | | | | B2 20030731 | | | | | | | | | | | | | |
| | | 9911590 | | | | | | | | BR 1999-11590 | | | | | | | | | |
| | EP | | | | | | | | | | EP 1999-924165 GB, GR, IT, LI, LU, NI | | | | | | | | |
| | | R: | | | | | | | FR, | GB, | GR, | , IT, | LI, | LU, | ΝL, | SE, | , MC, | PT, | |
| | מים | 2000 | | | LV, FI, RO | | | | | mp 2000 20002420 | | | | | 10000510 | | | | |
| | | 2000 | | | | | | TR 2000-200003429 JP 2000-550849 | | | | | | | | | | | |
| | | JP 2002516327 EE 200000706 | | | | | | | | | EE 2000-706 | | | | | | | | |
| | NZ | Z 508268 | | | | | A 20020017 | | | V. | | | | | | | 19990510 | | |
| | 7.A | 2000006536 | | | | Δ. | | 2002 | | ZA 2000-6536 | | | | | | | | | |
| | | 1049 | A | | 2001 | F | BG 2000-104960 | | | | | 20001117 | | | | | | | |
| | HR | IR 2000000799 | | | | | | 2001 | | H | IR 2 | 2000- | 799 | | | 2 | 20001 | 120 | |
| | NO | NO 2000005928 | | | | | | 2000 | N | HR 2000-799 NO 2000-5928 | | | | | 2 | 20001 | 123 | | |
| | HK 1039483 | | | | | | | 2004 | Н | HK 2001-107828 | | | | | 2 | 20011 | 108 | | |
| US 2004044012 | | | | | | A1 | | 2004 | 0304 | Ü | JS 2 | 2003-6 | 53884 | 18 | | 2 | 20030 | 811 | |
| PRIORITY APPLN. INFO.: | | | | | | | | | | U | JS 1 | 2003 - 6 L998 - 8 | 36708 | 3 P | | P : | 19980 | 526 | |
| | | | | | | | | | | | | L999-: | | | | | | | |
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| 00 | OFFILED GOVER CD (C) | | | | | | | | | | US 2000-623737 | | | | | A3 2 | 30000 | 907 | |
| OTHER COURCE(C). | | | | | | MADDAT 122.22071 | | | | } | | | | | | | | | |

OTHER SOURCE(S):

MARPAT 132:22971

GI

AB Title compds. [I; G = NR2 or CHR2; R = NHR1 or SOO-2R1; R1,R2 = H, (cyclo)alkyl, (un)substituted PH, -pyridyl, etc.; R3 = groups cited for R1, OH, alkoxy(carbonyl), etc.; R4 = H; R3R4 = bond; R8,R9 = H, halo, NH2, alkoxycarbonyl, etc.; X = O, S, (alkyl)imino, etc.; Z =N or CH] were prepared as cyclin-dependant and tyrosine kinase inhibitors. Thus, 5-aminomethyl-4-cyclopentylamino-2-methylthiopyrimidine (preparation given) was cyclocondensed with 1,1'-carbonyldiimidazole and the oxidized product aminated by 4-(MeO)C6H4NH2 to give I [G = cyclopentylimino, R = 4-(MeO)C6H4NH, R3 = R4 = R8 = R9 = H, X = O]. Data for biol. activity of I were given.

ΙT 251370-13-5P 251370-14-6P 251370-15-7P 251370-16-8P 251370-17-9P 251370-18-0P 251370-19-1P 251370-20-4P 251370-21-5P 251370-22-6P 251370-23-7P 251370-24-8P 251370-25-9P 251370-26-0P 251370-27-1P 251370-28-2P 251370-29-3P 251370-30-6P 251370-31-7P 251370-32-8P 251370-33-9P 251370-66-8P 251370-67-9P 251370-68-0P 251371-07-0P 251371-08-1P 251371-09-2P 251371-10-5P 251371-11-6P 251371-12-7P 251371-13-8P 251371-14-9P 251371-17-2P 251371-18-3P 251371-19-4P 251371-20-7P 251371-21-8P 251371-22-9P 251371-89-8P 251371-90-1P 251371-91-2P 251371-92-3P 251371-93-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of bicyclic pyrimidines and bicyclic 3,4-dihydropyrimidines as inhibitors of cellular proliferation)

RN 251370-13-5 HCAPLUS

CN Piperazine, 1-(aminoacetyl)-4-[4-[[6-(3,5-dimethoxyphenyl)-8-ethyl-5,6,7,8-tetrahydro-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]phenyl]- (9CI) (CA INDEX NAME)

RN 251370-14-6 HCAPLUS

CN Piperazine, 1-(aminoacetyl)-4-[4-[[6-(2-chloro-3,5-dimethoxyphenyl)-8-ethyl-5,6,7,8-tetrahydro-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]phenyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

RN 251370-15-7 HCAPLUS

CN Piperazine, 1-(aminoacetyl)-4-[4-[[6-(2,6-dichloro-3,5-dimethoxyphenyl)-8-ethyl-5,6,7,8-tetrahydro-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]phenyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Cl} & \text{Ch}_2 - \text{NH}_2 \\ \text{MeO} & \text{NH} \\ \text{Cl} & \text{OMe} \end{array}$$

RN 251370-16-8 HCAPLUS

CN Piperazine, 1-(aminoacetyl)-4-[4-[[6-(3,5-dimethoxy-2-methylphenyl)-8-ethyl-5,6,7,8-tetrahydro-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]phenyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c} & & & \\ & &$$

RN 251370-17-9 HCAPLUS

CN Piperazine, 1-(aminoacetyl)-4-[4-[[6-(3,5-dimethoxy-2,6-dimethylphenyl)-8-ethyl-5,6,7,8-tetrahydro-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]phenyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \\ \text{MeO} \\ \text{N} \\ \text{N}$$

RN 251370-18-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a mino]-3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro- (9CI) (CA INDEX NAME)

RN 251370-19-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chloro-3,5-dimethoxyphenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 251370-20-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichloro-3,5-dimethoxyphenyl)-7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 251370-21-5 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a mino]-3-(3,5-dimethoxy-2-methylphenyl)-1-ethyl-3,4-dihydro- (9CI) (CA INDEX NAME)

RN 251370-22-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-[2-(diethylamino)ethoxy]phenyl]a
mino]-3-(3,5-dimethoxy-2,6-dimethylphenyl)-1-ethyl-3,4-dihydro- (9CI) (CA
INDEX NAME)

RN 251370-23-7 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 7-[[4-(diethylamino) butyl] amino]-3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

RN 251370-24-8 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2-chloro-3,5-dimethoxyphenyl)-7-[[4-(diethylamino)butyl]amino]-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et}_{2N^{-}} \text{ (CH}_{2})_{4^{-}NH} & \overset{\text{Et}}{\underset{N}{\bigvee}} \text{O} \\ & & \\ & & \\ \text{C1} & & \\ & &$$

RN 251370-25-9 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(2,6-dichloro-3,5-dimethoxyphenyl)-7-[[4-(diethylamino)butyl]amino]-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et}_{2N^{-}} \text{ (CH}_{2})_{4} - \text{NH} & \text{N} & \text{O} & \text{Cl} \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & \\ & & \\ & \\ & & \\ & & \\ & \\ &$$

RN 251370-26-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-(diethylamino)butyl]amino]-3-(3,5-dimethoxy-2-methylphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et}_2\text{N-} \text{(CH}_2)_4 - \text{NH} & \begin{array}{c} \text{Et} \\ \text{N} \\ \text{N} \end{array} \\ \begin{array}{c} \text{OMe} \end{array}$$

RN 251370-27-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[4-(diethylamino)butyl]amino]-3-(3,5-dimethoxy-2,6-dimethylphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et}_2\text{N-} \text{(CH}_2)_4 - \text{NH} & \text{N} & \text{N} & \text{O} & \text{Me} \\ \hline & \text{N} & \text{N} & \text{N} & \text{O} & \text{Me} \\ & & \text{N} & & \text{OMe} \end{array}$$

RN 251370-28-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 251370-29-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2-chloro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 251370-30-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichloro-3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 251370-31-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3,5-dimethoxy-2,6-dimethylphenyl)-1-ethyl-3,4-dihydro-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 251370-32-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3,5-dimethoxy-2-methylphenyl)-1-ethyl-3,4-dihydro-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 251370-33-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 1-cyclopentyl-3-(2,6-dichloro-3,5-dimethoxyphenyl)-3,4-dihydro-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 251370-66-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-dione, 7-[[4-(diethylamino)butyl]amino]-3-(3,5-dimethoxyphenyl)-1-ethyl-(9CI) (CA INDEX NAME)

RN 251370-67-9 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-dione, 7-[[4-[2-(diethylamino)ethoxy]phenyl]amino]-3-(3,5-dimethoxyphenyl)-1-ethyl-(9CI)(CA INDEX NAME)

$$\mathsf{Et}_2\mathsf{N}-\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{O}$$

RN 251370-68-0 HCAPLUS

CN Pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-dione, 3-(3,5-dimethoxyphenyl)-1-ethyl-7-(4-pyridinylamino)- (9CI) (CA INDEX NAME)

RN 251371-07-0 HCAPLUS

CN Benzoic acid, 3-[[6-(2,6-dichlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 251371-08-1 HCAPLUS

CN Benzamide, 3-[[6-(2,6-dichlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 251371-09-2 HCAPLUS

CN Benzamide, 3-[[6-(2,6-dichloro-3-hydroxyphenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)

RN 251371-10-5 HCAPLUS

CN Benzoic acid, 3-[[6-(2,6-dichloro-3-hydroxyphenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 251371-11-6 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichlorophenyl)-7-[[4-[2-(ethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl-(9CI) (CA INDEX NAME)

RN 251371-12-7 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichloro-3-hydroxyphenyl)-7-[[4-[2-(ethylamino)ethoxy]phenyl]amino]-3,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)

RN 251371-13-8 HCAPLUS

CN Benzamide, 4-[[6-(2,6-dichlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & Me \\ H_2N-C & Me \\ N & N & O & C1 \\ \hline & N & N & O & C1 \\ \hline & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ & & \\ & \\ & \\ & \\ & \\ & \\ &$$

RN 251371-14-9 HCAPLUS

CN Benzamide, 4-[[6-(2,6-dichloro-3-hydroxyphenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 251371-17-2 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichloro-3-hydroxyphenyl)-3,4-dihydro-1-methyl-7-[[4-(4-morpholinyl)phenyl]amino]- (9CI) (CA INDEX NAME)

RN 251371-18-3 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(2,6-dichloro-3-hydroxyphenyl)-3,4-dihydro-7-[[3-(hydroxymethyl)phenyl]amino]-1-methyl- (9CI) (CA INDEX NAME)

RN 251371-19-4 HCAPLUS

CN Benzenebutanoic acid, 4-[[6-(2,6-dichlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 251371-20-7 HCAPLUS

CN Benzenebutanoic acid, 4-[[6-(2,6-dichloro-3-hydroxyphenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 251371-21-8 HCAPLUS

CN Benzaldehyde, 4-[[6-(2,6-dichlorophenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 251371-22-9 HCAPLUS

CN Benzaldehyde, 4-[[6-(2,6-dichloro-3-hydroxyphenyl)-5,6,7,8-tetrahydro-8-methyl-7-oxopyrimido[4,5-d]pyrimidin-2-yl]amino]- (9CI) (CA INDEX NAME)

RN 251371-89-8 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[2-[(4-pyridinylmethyl)amino]ethyl]amino]- (9CI) (CA INDEX NAME)

RN 251371-90-1 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[3-(4-methyl-1-piperazinyl)propyl]amino]- (9CI) (CA INDEX NAME)

Me N
$$\sim$$
 (CH₂)₃-NH \sim N \sim N \sim OMe

RN 251371-91-2 HCAPLUS

CN Pyrimido [4,5-d] pyrimidin-2(1H)-one, 3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[4-(4-methyl-1-piperazinyl)butyl]amino]- (9CI) (CA INDEX NAME)

Me N
$$\sim$$
 (CH₂) 4 \sim NH \sim NN \sim NN \sim OMe OMe

RN 251371-92-3 HCAPLUS

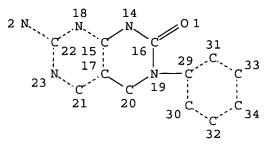
CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-7-[[5-(4-methyl-1-piperazinyl)pentyl]amino]- (9CI) (CA INDEX NAME)

RN 251371-93-4 HCAPLUS

CN Pyrimido[4,5-d]pyrimidin-2(1H)-one, 7-[[3-(diethylamino)propyl]amino]-3-(3,5-dimethoxyphenyl)-1-ethyl-3,4-dihydro-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et}_2\text{N-} \text{(CH}_2)_3 - \text{NH} & \text{N} & \text{OMe} \\ \hline \\ \text{N} & \text{N} & \text{N} & \text{OMe} \\ \end{array}$$

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NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L26 790 SEA FILE=REGISTRY SSS FUL L24 L27 12 SEA FILE=HCAPLUS ABB=ON L26

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FILE 'REGISTRY' ENTERED AT 15:19:43 ON 14 MAY 2005

L24 STRUCTURE 651734-33-7

L25

L26 790 SEA SSS FUL L24

STRUCTURE 651734-33-7

32 SEA SSS SAM L24

790 SEA SSS FUL L24

Sele of the structure

790 compdain Reg.

CAPLUS' ENTERED AT 15:21:02 ON 14 MAY 2005

12 SEA ABB=ON L26

72 Cels in CAPlus FILE 'HCAPLUS' ENTERED AT 15:21:02 ON 14 MAY 2005

12 SEA ABB=ON L26 L27

Searched by Mary Jane Ruhl Ext. 22524